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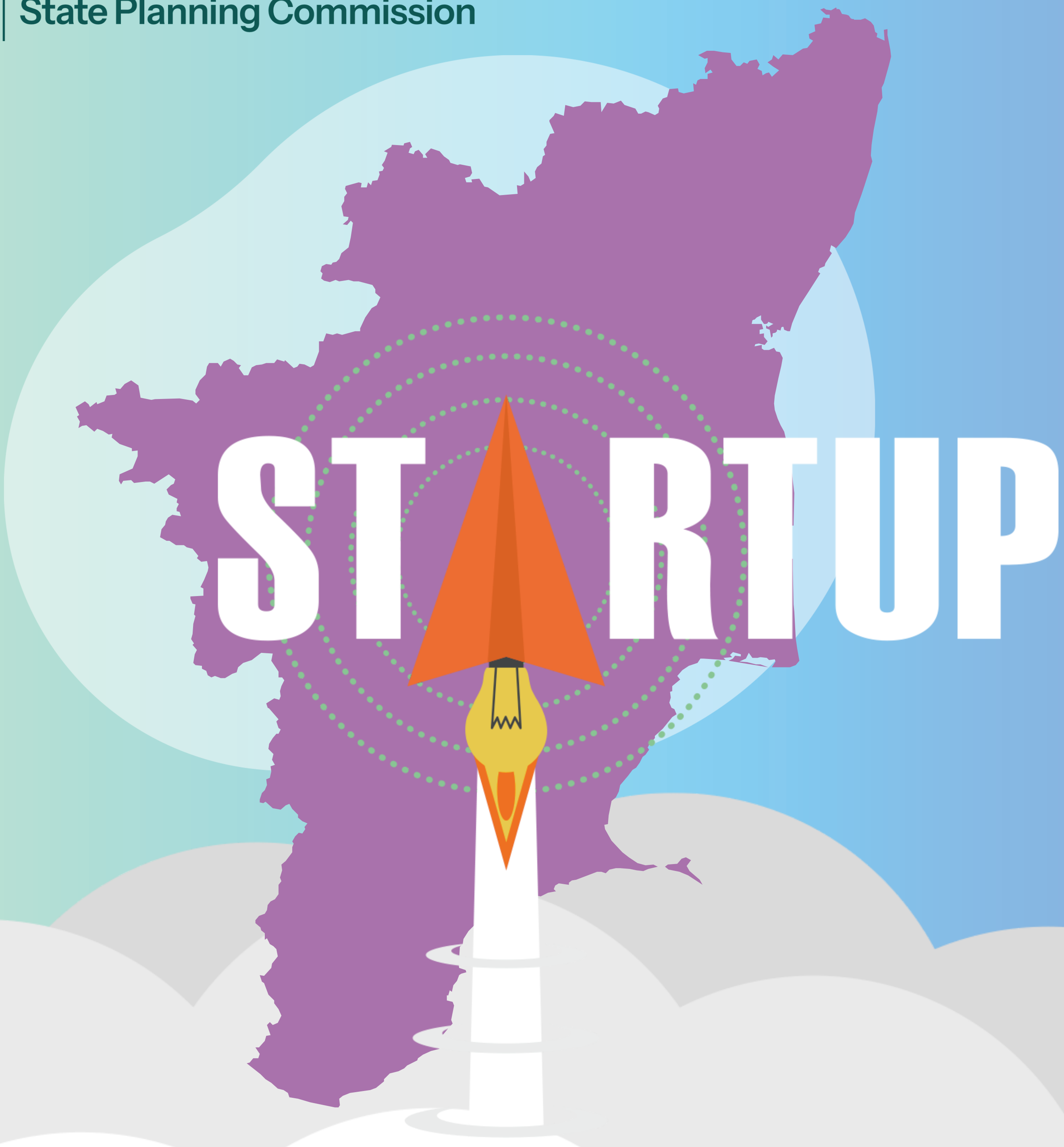

REPORT 2025

START-UP ECOSYSTEM IN TN:
OPPORTUNITIES AND CHALLENGES

Start-up Ecosystem in Tamil Nadu: Opportunities and Challenges

State Planning Commission
Government of Tamil Nadu

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FOREWORD

Tamil Nadu has long been a pioneer in industrial development, particularly in the SME sector. In recent years, the state has made rapid strides in extending this leadership to start-ups and innovation, emerging as one of India's most dynamic and inclusive ecosystems for entrepreneurial growth. The establishment of StartupTN has been a catalytic force, bringing coherence, energy, and strategic direction to this transformation. With a robust Startup and Innovation Policy and twelve sector-specific policies, Tamil Nadu has laid a comprehensive foundation for innovation-led development.

This publication, the result of study by the Centre for Research on Start-ups and Risk Financing (CREST), IIT Madras, offers a timely and comprehensive overview of Tamil Nadu's start-up landscape. It draws on extensive secondary policy analysis, interviews with founders across the state, and focus group discussions involving entrepreneurs. The findings are both affirming and instructive.

Tamil Nadu's policy framework stands out for its breadth and depth. With many initiatives, it leads in seven of nine thematic areas including market access, funding, and infrastructure when benchmarked against five other states. Notably, the state's commitment to equitable growth is reflected in its targeted support for SC and ST, transgender, and differently-abled entrepreneurs, echoing the principles of the "Dravidian Model."

Academic incubators, government funding and public procurement have been instrumental in driving success across Tamil Nadu's start-up landscape—particularly for non-IT ventures. However, as with any evolving ecosystem, challenges persist. Access to funding remains a critical need, especially for manufacturing start-ups where infrastructure availability is equally vital. Talent acquisition and retention continue to pose hurdles, and regulatory environment has to be further simplified to boost operational efficiency. To ensure effective execution of start-up policies and ecosystem initiatives, learning from best practices in other states will be essential.

I extend my sincere appreciation to Prof. A. Thillai Rajan, CREST, IIT Madras, and his dedicated team for their invaluable contribution and support in conducting this study and preparing the report. This work serves not only as a roadmap for the future but also reaffirms Tamil Nadu's position as a national leader in start-up innovation. It offers actionable insights that will empower policymakers, entrepreneurs, and ecosystem enablers to foster growth that is inclusive, sustainable, and future-ready.

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PREFACE

The State of Tamil Nadu, traditionally a leading state in the SME (Small and Medium Enterprises), has made rapid strides in becoming a leading state for start-ups as well. The setting up of Startup-TN has provided the necessary fillip and focus for creating a vibrant start-up ecosystem in the state. Apart from the nodal Start-up and Innovation Policy, the Government of Tamil Nadu has implemented 12 other sector specific policies that encourages the setting up of start-ups. Benchmarking of the Tamil Nadu Start-up and Innovation Policy with the similar policy in comparable states, shows that the policy of Tamil Nadu has been the most comprehensive. Key features of the start-up thrust in the state has been the setting up of regional hubs, focus on both technology and non-technology sectors, emphasis on equity by including marginalised sections among the target segments. On ground results have been impressive: As of July 2025, there have been more 11,900 start-ups set-up, 5 unicorns, 24 IPOs, 228 incubators and accelerators in Tamil Nadu.

This publication is an outcome of a 9-month study undertaken by the Centre for Research on Start-ups and Risk Financing, IIT Madras that uncovers the opportunities the state provides for the start-ups. Like in any growth system, there are challenges that need to be addressed. The findings have been synthesized based on an exhaustive secondary analysis of policies pertaining to start-ups, pioneering primary data collection through interviews with 422 start-up founders drawn from regions across the state, and 11 focus group discussions with over 100 founders across the state. While the report gives detailed results, prominent findings are as follows:

Policy analysis
Tamil Nadu's Startup and Innovation Policy emphasises infrastructure development, human capital, and mentorship through government-academic partnerships. Emerging sector policies (blockchain, EVs, AI, aerospace) focus on regulatory frameworks. Infrastructure support remains central across all policies.

Compared to five other states, Tamil Nadu's policy is most comprehensive, with 283 initiatives, leading in seven of nine themes including market access, funding, and infrastructure. The state excels particularly in equitable growth provisions, reflecting its "Dravidian Model" philosophy through targeted support for SC/ST, transgender, and differently-abled entrepreneurs.

Improvement opportunities exist in regulatory reforms and sustainability, where Gujarat, Karnataka, and Kerala demonstrate superior practices.

Opportunities for start-ups

Tamil Nadu's start-up ecosystem shows significant opportunities driven by StartupTN's catalytic effect since 2021. The landscape favours early traction and scaling stages across services, products, and manufacturing, particularly in IT, healthcare, agriculture, and food sectors. D2C models dominate, with problem-solving motivating entrepreneurs and social impact driving female founders.

Academic-hosted incubators provide crucial funding and networking support, with non-IT start-ups showing higher participation. State government funding reaches 27 percent of surveyed start-ups, with incubated start-ups achieving 27 percent success rates versus 3 percent for non-incubated ones. Public procurement enhances market access, while technical skills and marketing remain critical workforce needs.

Challenges that need to be addressed

Tamil Nadu's start-up ecosystem faces significant challenges across multiple dimensions. Funding remains problematic with low private investment (5 percent Angel, 4 percent VC), severe gender disparities in funding access, and complex government application processes. Infrastructure gaps exist for manufacturing start-ups requiring specialised facilities. Talent acquisition proves difficult for early-stage ventures, with retention issues plaguing IT startups and gender representation gaps persisting.

Market access suffers from low government procurement engagement (30 percent GeM registration) and stringent eligibility criteria. Support systems show limited formal incubation adoption (70 percent develop independently). Regulatory complexity, GST burdens, and policy-experience disconnects create additional operational hurdles for emerging ventures. To unlock its potential, Tamil Nadu must implement targeted interventions. Recommendations include simplifying access to government schemes and funding, reforming public procurement to be more inclusive of start-ups, and strengthening the talent ecosystem with better support for non-incubated ventures. Streamlining regulatory processes and learning from best practices in other states are vital to bridge the implementation gap, ensuring the state's vision translates into sustainable growth and a thriving, competitive start-up environment.

Thillai Rajan A.

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The State Planning Commission extends its sincere appreciation to CREST, IIT Madras, under the leadership of Dr. A. Thillai Rajan, Professor of Finance, Centre for Research of Start-up and Risk Financing, and his dedicated team for their invaluable expertise and contribution to this comprehensive study on, "Start-up Ecosystem in Tamil Nadu: Opportunities and Challenges".

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This study reflects a collaborative effort that bridges academic expertise, governmental guidance, and field-level insights, paving the way for a deeper understanding and strategic development of the start-up ecosystem in Tamil Nadu.

Contents

Foreword	*i*
Preface	*ii*
Acknowledgements	*iv*
Executive Summary	*v*
Chapter 1: Introduction	1
Chapter 2: Policy Analysis	9
Chapter 3: Start-up Landscape in Tamil Nadu	55
Chapter 4: Support System	101
Chapter 5: Funding	120
Chapter 6: Government Schemes and Initiatives	141
Chapter 7: Market Access and Skilled Talent	155
Chapter 8: Sustainability and Scaling, and Regulatory Reforms	172
Chapter 9: Voices from the Ground: Strengthening the Tamil Nadu Start-up Ecosystem	187
Chapter 10: Summary and Recommendations	199
Case Studies – Global Start-up Ecosystems	204
Case Studies – Emerging start-ups in Tamil Nadu	210
Annexures	*221*

List of Figures

1.1	Year-wise distribution of start-ups incorporated in the state	1
1.2	Applications of the Study	4
1.3	Objectives addressed	5
1.4	Conceptual Framework	7
2.1	Critical Tenets identified in Growth Framework	12
2.2	Overview of Tamil Nadu start-up relevant policies	15
2.3	Emerging Themes and trends - Start-up Ecosystem Growth	16
2.4	Themes and Subthemes identified for start-up ecosystem growth analysis	17
2.5	Emerging Themes & Trends – Life Cycle of Start-ups	18
2.6	Analysis of policies using weighted average method	19
2.7	Top two focus themes by Policy	20
2.8	In-depth sub-themes focus by Policy	21
2.9	Analysis of sub-themes using weighted average method	22
2.10	Identifying sub-themes dominated by the policy	23
2.11	Analysis of policies using weighted average method	25
2.12	Number of Initiatives targeting business stages of start-ups	26
2.13	Recognised Start-ups and Job Creation	34
2.14	Distribution of main themes within each state start-up policy using the weighted average method	35
2.15	Analysis of main themes across state start-up policies using weighted average methods	40
2.16	Main themes with Tamil Nadu policy leading in all sub-themes	43
2.17	Main themes with Tamil Nadu policy leading in majority sub-themes	44
2.18	Main themes led by Tamil Nadu policy with a lead by other state policies in sub-themes	45
2.19	Main themes led by other state policies	47
2.20	Distribution of beneficiaries within state start-up policy using the weighted average method	49
2.21	Distribution of scope within state start-up policy using the weighted average method	50
2.22	Analysis of target beneficiaries and scope of study using the weighted average method	51
3.1	Gender-wise distribution of respondents by current age	56
3.2	Gender-wise distribution of respondents by age at the time of start-up incorporation	57
3.3	Gender-wise distribution of respondents by age at the time of start-up incorporation	59
3.4	Gender-wise distribution of respondents by the type of school attended	61
3.5	SEC-wise distribution of respondents by the type of school attended	61
3.6	Distribution of respondents by types of school and school education board	62
3.7	Distribution of respondents by type of school and medium of instruction	62
3.8	Gender-wise distribution of respondents by the highest level of college education	63
3.9	Gender-wise distribution of respondents by the highest level of college education	64
3.10	Distribution of respondents by degree topic	65
3.11	Gender-wise distribution of respondents by the degree topic	66
3.12	Gender-wise distribution of respondents by the degree topic	67
3.13	Gender-wise distribution of respondents by type of college attended	68

3.14	Gender-wise distribution of respondents by marks secured	69
3.15	Prior work experience by age at the time of start-up incorporation	70
3.16	Distribution of respondents by parents' highest level of education	71
3.17	Distribution of respondents by parents' occupation	72
3.18	Parents' highest level of education matrix	74
3.19	Parents' occupation matrix	75
3.20	Father's highest level of education and occupation matrix	76
3.21	Mother's highest level of education and occupation matrix	77
3.22	Distribution of start-ups by year of incorporation	78
3.23	Distribution of start-ups by the stage at which it is currently functioning	79
3.24	Distribution of start-ups by type of business	80
3.25	Distribution of start-ups by type of sector	80
3.26	Distribution of start-up businesses by sector	81
3.27	Distribution of start-ups by business models and business types	82
3.28	Distribution of start-ups by type of market	82
3.29	Distribution of start-ups by number of founders	83
3.30	Distribution start-ups by type of founders' connection	84
3.31	Distribution of start-ups by founders' diversity patterns	85
3.32	Distribution of respondents by status of the venture	86
3.33	Distribution of employees by founding member sizes	87
3.34	Distribution of women employees by founding member sizes	87
3.35	Distribution of employees by average age group	88
3.36	Motivation to launch a start-up - Mean scores	89
3.37	Motivation to launch a start-up by gender – Mean scores	90
3.38	Qualitative findings on motivation to launch a start-up	92
4.1	Distribution of IT and non-IT start-ups by ever-incubated	103
4.2	Distribution of IT and non-IT start-ups by ever-incubated	103
4.3	Distribution of incubated start-ups by age of the start-up	104
4.4	Distribution of incubated start-ups by type of host organisation	105
4.5	Distribution of IT and non-IT incubated start-ups by type of host organisation	106
4.6	Distribution of incubated start-ups by type of support available	111
4.7	Sources from which respondents learnt about the incubator	114
4.8	Age-based differences in incubator selection patterns	115
4.9	Ways in which incubation helped the start-up grow – Mean scores	116
4.10	Ranking of reasons for not applying for incubation	117
4.11	Distribution of respondents by challenges faced during the incubator selection process	118
4.12	Type of challenges faced during the incubator selection process	119
4.13	Ranking of improvements that make incubators more effective for start-ups	120
4.14	Qualitative Findings on Support Systems – Incubators	122
4.15	Qualitative Findings on Support Systems – Mentoring and Networking	123
4.16	Qualitative Findings on Support Systems – Research and Development	124
5.1	Different types of funding received by the surveyed start-ups	128
5.2	Profile of start-up founders by type of funding accessed	130
5.3	State Government funding application patterns	131
5.4	Sources from which start-ups learnt about the Tamil Nadu Government Funds for start-ups	132
5.5	Ranking of reasons for not availing the State Government funds for start-ups	133

5.6	Ranking of challenges faced while securing funds by IT and Non-IT start-ups	135
5.7	Ranking of challenges faced while securing funds by incubated and not incubated start-ups	136
5.8	Ranking of challenges faced during the funding application process	136
5.9	Ranking of challenges faced during the funding application process	137
5.10	Qualitative findings – Funding and Finance	139
6.1	Awareness levels across the five categories of StartupTN schemes and initiatives	143
6.2	Awareness levels of StartupTN schemes and initiatives within the five categories	144
6.3	Awareness levels of StartupTN schemes and initiatives within the five categories	145
6.4	Access levels of StartupTN schemes and initiatives within the five categories	147
7.1	Profile of surveyed start-ups that have registered on the GEM portal	157
7.2	Distribution of start-ups that have registered on the GEM portal by business type	157
7.3	Profile of start-ups that have participated in public procurement	158
7.4	Top three ways in which public procurement impacted the start-up	160
7.5	Top three challenges faced by start-ups during the public procurement application process	161
7.6	Top three reasons why start-ups that did not register on the GeM portal	162
7.7	Top three reasons why start-ups did not participate in public procurement	163
7.8	Areas that require essential skills for the workforce	164
7.9	Opinion on the availability of skilled workforce in Tamil Nadu	165
7.10	Qualitative Findings – Market Access	167
7.11	Qualitative Findings – Skill Development and Talent	168
8.1	Profile of start-ups that have adopted environmentally sustainable practices	174
8.2	Ways in which start-ups reduce environmental impact	175
8.3	Profile of start-ups that have adopted socially sustainable practices	177
8.4	Ways in which start-ups adopt socially sustainable practices are adopted	178
8.5	Top three challenges faced by start-ups to achieve sustainability	179
8.6	Top three challenges faced by start-ups to achieve scalability	180

List of Tables

2.1	Overview of Tamil Nadu start-up relevant policy vision statements	14
2.2	Policies supporting the life cycle of start-ups	25
2.3	Profile and context of the selected states	29
2.4	Top five start-up sectors of selected states	30
2.5	Overview of State Start-Up Policies	31
2.6	Presenting the comprehensiveness of the state's start-up policy vision statements	33
2.7	Distribution of sub-theme within state policies	37
2.8	Best Practices Identified across states	52
4.1	Innovation and Entrepreneurship landscape across Tamil Nadu's Higher Education Institutions	110
4.2	Distribution of incubated start-ups by facilities available in the host organisations	113

5.1 Access to critical resources related to funding 128
7.1 Public procurement application and success rates 159

List of Maps

1.1 District-wise distribution of DPIIT-registered start-ups in Tamil Nadu 2
1.2 Geographical spread of the study 6

List of Abbreviations

AI	Artificial Intelligence
B2B	Business-to-Business
B2B2C	Business-to-Business-to-Consumer
B2C	Business-to-Consumer
CA	Chartered Accountant
CAPI	Computer-Assisted Personal Interviews
CED	Centre for Entrepreneurship Development
CS	Company Secretary
D2C	Direct-to-Consumer
DI-AB	Differently Abled
DPIIT	Department for Promotion of Industry and Internal Trade
EDII	Entrepreneurship Development and Innovation Institute
EMD	Earnest Money Deposit
ESDM	Electronics System Design and Manufacturing
EV	Electric Vehicle
FDI	Foreign Direct Investment
FGD	Focused Group Discussions
G2B	Government to Business
GDP	Gross Domestic Product
GeM	Government e-Market
GO	Government Order
GPS	Global Positioning System
GPT	Generative Pre-trained Transformer
GST	Goods and Sales Tax
HEI	Higher Education Institution
IITM	Indian Institute of Technology Madras
IoT	Internet of Things
IP	Intellectual Property
IPO	Initial Public Offering
IPR	Intellectual Property Rights
IT	Information Technology
IT	Income Tax
ITeS	Information Technology Enabled Services
L&D	Learning and Development
MILP	Mixed Integer Linear Programming
MRSI	Market Research Society of India
MSME	Micro, Small and Medium Enterprises
NCCS	New Consumer Classification System
OECD	Organization for Economic Cooperation and Development

PH	Physically Handicapped
POC	Proof of Concept
Q&A	Question and Answer
R&D	Research and Development
REG	Regional
RUR	Rural
S2G	Startup to Government
SaaS	Software as a Service
SC/ST	Scheduled Caste/ Scheduled Tribe
SDG	Sustainable Development Goals
SEBC	Socially and Economically Backward Class
SEC	Socio-Economic Classification
SECT	Sectoral
SECZ	Senior Citizens
SIDCO	Small Industries Development Corporation
SME	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
STU	Student
TBI	Technology Business Incubator
Tech	Technology
TRANS	Transgender
TRL	Technology Readiness Levels
VIT	Vellore Institute of Technology
WOM	Women

Executive Summary

Tamil Nadu aims to become a $1 trillion economy by 2030, and the start-up ecosystem in the state is expected to play a pivotal role in this vision, contributing to innovation and job creation. The state holds a strong position as India's third-largest start-up ecosystem, with Chennai being a major hub. Its strengths include the availability of a vast talent pool from a well-developed technical education system, robust manufacturing infrastructure, and a strategic coastal location.

Start-up Policy Landscape in Tamil Nadu

Tamil Nadu has at least 13 policies that have a specific focus on start-ups, including the flagship Start-up and Innovation Policy. The list of policies that have a specific emphasis on start-ups are:

1. Tamil Nadu State Deep Tech Startup Policy
2. Tamil Nadu Space Industrial Policy
3. Tamil Nadu State New Policy for Women
4. Tamil Nadu Start-Up and Innovation Policy
5. Tamil Nadu Electric Vehicle Policy
6. Tamil Nadu R&D Policy
7. Tamil Nadu Aerospace & Defence Industrial Policy
8. Tamil Nadu Industrial Policy
9. Tamil Nadu MSME Policy
10. Tamil Nadu Blockchain Policy
11. Tamil Nadu Electronics Hardware Manufacturing Policy
12. Tamil Nadu Safe & Ethical Artificial Intelligence Policy
13. Tamil Nadu Information Communication Technology Policy

In this study, themes and sub-themes formed the core analytical framework for a comprehensive examination of policies shaping Tamil Nadu's start-up ecosystem. This framework aligns with the evaluation methodology recommended by the Organisation for Economic Co-operation and Development (OECD) for assessing SME and entrepreneurship policies. The study identified nine critical themes for the success of start-up ecosystem growth. These themes represented key areas of support for start-ups, such as

1. Market Access
2. Funding and Finance
3. Regulatory Reforms
4. Infrastructure
5. Support Systems
6. Skill Development
7. Equitable Growth
8. Sustainability

Additionally, policy initiatives were analysed based on their targeting of specific business stages of start-ups: Ideation, Validation, Early Stage, and Scaling.

A total of 29 sub-themes were identified across the themes. These were derived from a deeper examination of the nuances within each of the nine major themes, allowing for a more granular understanding of specific patterns and variations in the policy data.

The various policies complement each other in terms of their focus and support mechanisms, thereby providing a strong safety net for start-ups in different sectors and at different stages of their lifecycle. For example,

- The Startup and Innovation Policy and the R&D Policy focuses on the development of infrastructure, human capital, incubation, and mentor support in collaboration with government and academic institutions.
- Policies for emerging sectors like the Blockchain, Electric Vehicle, Safe & Ethical Artificial Intelligence, and Aerospace; Defence mainly focus on enabling a supportive regulatory environment for these emerging areas.
- Creation of Infrastructure support (both Physical and Sectoral) for start-ups is a common recurring theme in nearly all policies.
- As the nodal policy, the Startup and Innovation Policy has the maximum number of initiatives and focuses on several areas critical to start-up growth, leading in 19 sub-themes. This is followed by the Industrial and MSME policies, which also lead in several sub-themes.

Benchmarking of Tamil Nadu's Innovation and Start-up Policy with those of 5 other states, viz., Kerala, Gujarat, Karnataka, Odisha, and Maharashtra indicate the following:

- Tamil Nadu's policy is the most comprehensive and detailed, covering various aspects of the ecosystem. It offers a greater number of initiatives (283) compared to the policies of other states.
- Tamil Nadu leads in provisions for seven out of nine major themes analysed, including Access to Market, Funding and Finance, Infrastructure, Institutional Collaboration, Skill Development and Training, Support Systems, and Provisions for Equitable Growth.
- The state shows an overwhelming lead in Provisions for Equitable Growth, reflecting the government's "Dravidian Model" political philosophy, which emphasises inclusive growth through targeted social interventions. Separate funding schemes for start-ups led by SC and ST youth, trans people, and the differently abled highlights this focus.
- Some of the best practices of other start-up policies that can hold relevance for Tamil Nadu would be: Gujarat's emphasis on Regulatory Reforms with a thorough governance model, Karnataka's focus on Environmental Sustainability, and Kerala's approach towards ensuring Start-up Sustainability, including

accommodating failures through distress funds and facilitating smooth winding up of operations under adverse conditions.

Start-up and Founder Landscape

- Majority of the start-ups in Tamil Nadu have been incorporated in 2021 or later, coinciding with the launch of StartupTN. This indicates the positive impact of Startup TN in the formation of start-ups in Tamil Nadu. The start-ups are also proportionally distributed across different stages of the start-up lifecycle, with the highest proportion of start-ups in the early traction and scaling stages.
- Services, product-based businesses, and manufacturing are the primary business types, while IT, healthcare, agriculture, and food and beverages are the leading sectors.
- The Direct-to-Consumer (D2C) model is dominant, particularly in product-based and service businesses. Addressing the opportunities in the domestic market has been the primary focus for most start-ups.
- Founder demographics show a mean age of 37.99 years, with men typically starting ventures later (31-35 years) than women (26-30 years).
- A significant portion of founders come from the higher SEC (Socio Economic Classification) A category. Founders typically come from middle-class backgrounds where fathers had good education and professional backgrounds, indicating that the ability of the family support the founders in the initial stages of the start-up play a very important role in the decision to set up a venture.
- Founders in SEC A categories have predominantly studied in private schools indicating their higher financial capacity, while SEC B, C, and D categories prefer government schools for their accessibility.
- Across all socio-economic segments, the Tamil Nadu State Board curriculum has been the preferred choice regardless of school type, viz., private or government schools
- There has been no significant trend on the choice of medium of instruction, viz., Tamil or English. There has been no statistically significant variation in language choice among respondents.
- Since technology and innovation plays an important role in start-ups, engineering has been the most favoured academic discipline across undergraduate and postgraduate levels, underscoring the critical contribution of engineering colleges to entrepreneurial ecosystem development.
- Differences could be observed in the choice of academic discipline between men and women founders. While male founders have been predominantly pursuing engineering programs, significant percentage of the women founders have also been science disciplines.
- A majority of the start-up founders have studied in Government educational institutions for tertiary education, either undergraduate and postgraduate. This indicates the critical role played by the government institutions in start-up formation. A possible reason for this trend could be the lower cost of education in

the government institutions, thus reducing the burden on the founders to seek immediate employment to recover their cost of education. Further, the ecosystem for start-up formation in government institutions in general is more developed than private institutions, thus highlighting the crucial contributions made by government institutions towards start-up formation

- The start-up founders have consistently achieved high levels of academic performance in higher education, indicating a strong correlation between academic excellence and entrepreneurial pursuits. Entrepreneurship has thus been a matter of choice rather than of compulsion, since high academic performers usually have multiple career options open to them
- Analysis of the family background of founders indicate that the traditional gender roles were evident, with fathers primarily serving as income earners (often in business or agriculture) and mothers typically assuming domestic responsibilities. However, it has been found that mothers have significant influence in shaping entrepreneurial trajectories of the founders, particularly women founders.
- Most founders have prior work experience (69 percent), averaging 10 years before starting their venture.
- Non-family relationships dominate among founders, with 58 percent of co-founder partnerships formed through non-kinship ties. Friends constitute the largest non-family category at 28 percent.
- Problem-solving has been the key motivator for entrepreneurs to start their ventures. Social impact has been a significantly stronger motivator for women entrepreneurs as compared to their male counterparts

Support System

- Start-ups have had moderate success in accessing incubators, since only 30 percent of the start-ups have used incubation services.
- Academic institutions, especially the private sector universities and the universities run by the Government of India, have been the dominant host organisations for incubators in Tamil Nadu. A higher proportion of non-IT start-ups have availed incubation as compared to that of IT start-ups. This indicates that if we need to have more start-ups in non-IT sectors, the proportion of start-ups accessing incubators need to improve.
- Access to physical infrastructure, office space, and knowledge resources (like mentorship) have been the most valued aspect of incubation support. The need for physical infrastructure support is more for non-IT sectors, which explains the trend of more non-IT start-ups seeking incubation support
- Start-up founders have suggested that timely decisions from the incubator, increasing the incubation facilities, proper responses to queries, and transparent decision making in the selection process can help more start-ups to avail incubation facilities. Enhanced funding opportunities, networking, and mentorship can convince founders to actively look for incubation support.

- Prominent reasons for not applying for incubation include concerns about equity dilution and perceived constraints on flexibility.

Funding

- Government funding has been a primary source of funding for start-ups till they reach a stage where they start earning revenues.
- While angel investors prefer to invest in younger founders (18-35 years), Most of the other investors prefer to invest in older founders (>35 years).
- A striking gender disparity exists in terms of access to funding, with male founders receiving 84-94 percent of all external funding.
- While the proportion of start-ups applying for the State Government funding schemes have been relatively low (28-40 percent), incubated start-ups have significantly higher success rates (27 percent) in getting funded as compared to non-incubated ones (3 percent).
- Efforts to publicize the different funding schemes and clearly highlighting who can apply under different schemes can increase the number of applications for funding. The most often cited reasons by founders for not applying for the different funding schemes have been: "lack of awareness of different funding sources" and "difficulty finding the right funding option"
- The major reasons that deter founders to apply for government funding schemes include the perceived high competition in selection and stringent eligibility criteria.

Government Schemes and Initiatives

- StartupTN have launched several start-up support initiatives. Analysing the responses to these initiatives indicate that while funding and community-building initiatives (e.g., TANSEED, Startup Tamizha) have been very popular, the responses have been modest for mentoring, innovation literacy, and resource programs.
- There is scope to increase the conversion ratio of awareness to access rates in various schemes. For example, in the case of funding support, only 23 percent of those who are aware about the scheme end up applying to these schemes.

Market Access (Public Procurement)

- Only 30 percent of start-ups have registered on the Government e-Marketplace (GeM) portal. Male founders, non-IT start-ups, and those offering tangible services and products show higher registration and participation rates in GeM.
- Only 27 percent of GeM-registered start-ups have participated in procurement opportunities, with significant gender and sector disparities in participation and success rates.
- Apart from earning revenues, start-ups value public procurement for providing new market opportunities, creating equal competitive conditions, and enhancing reputation and credibility.

- Major challenges being perceived for not participating in GeM include stringent eligibility criteria, lack of transparency, and long processing times. Reasons for not registering or participating include a lack of awareness, perceived lengthy processes, and assuming that it is not applicable to their business.
- To kickstart start-up participation in public procurement by state government, a simple user-friendly parallel e-MarketPlace can be conceptualized by the Government of Tamil Nadu.

Skilled Talent

- Technical Skills, Marketing and sales are consistently seen as critical workforce competencies.
- Early-stage founders face the most significant challenge in accessing skilled talent. Notably, no ideation-stage start-ups strongly agreed that relevant skills are readily available, highlighting a crucial gap in the ecosystem's support for nascent ventures. Specific programs that can meet the skill requirements of start-ups can be offered in higher education institutions so that start-ups can have ready access to talent.

Sustainability and Scaling

- Start-ups adopt environmental sustainability practices through resource efficiency and energy and waste management, though gaps exist, particularly for IT firms in energy and waste management.
- Social responsibility initiatives typically emerge only after start-ups achieve some maturity.
- Funding and financial constraints are the primary obstacles to both sustainability and scalability.
- Sector-specific challenges for scalability also exist, with IT ventures struggling with operational complexity and talent retention, while non-IT start-ups face significant difficulty in accessing technology and infrastructure, highlighting the resource disparities that exist between the sectors.

Regulatory framework

- Since many start-up founders do not have prior business experience before starting their ventures, they struggle with handling regulatory compliance requirements efficiently
- Key advisors that start-up founders rely on for guidance such as the company auditor, company secretary and so on need more awareness on the compliance requirements for start-ups and are therefore not fully equipped to advise the founders. Founders have therefore expressed that they struggle with a complex web of requirements, including filing statutory documents, managing GST compliance, addressing labour laws, and so on.

Overall, while Tamil Nadu's start-up ecosystem has made rapid strides in recent years, certain areas need more attention for the state to realize its full potential. Prominent among them include, creating awareness and accessibility of support programs, navigating and securing funding, addressing gender and sector disparities, and ensuring sustainability and scalability. Strengthening interventions that capitalizes on the regional opportunities is a key opportunity for the state to differentiate itself from the paths pursued by comparable states.

Chapter 1
Introduction

முயற்சி திருவினை ஆக்கும் முயற்றின்மை
இன்மை புகுத்தி விடும் (Thirukkural 616)

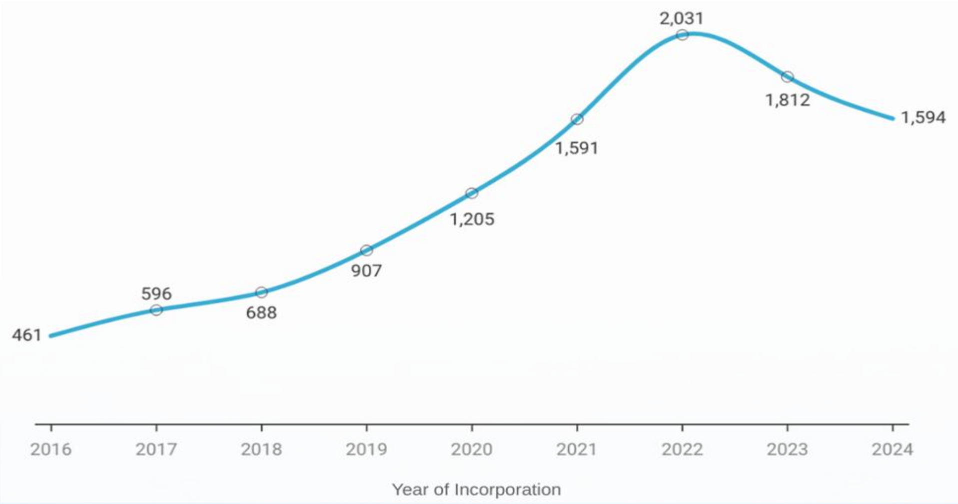
Determined effort brings prosperity, while lack of it leads to poverty.

1.1 Background and significance

“We have set ourselves an ambitious target of becoming a $1 Trillion economy by 2030”

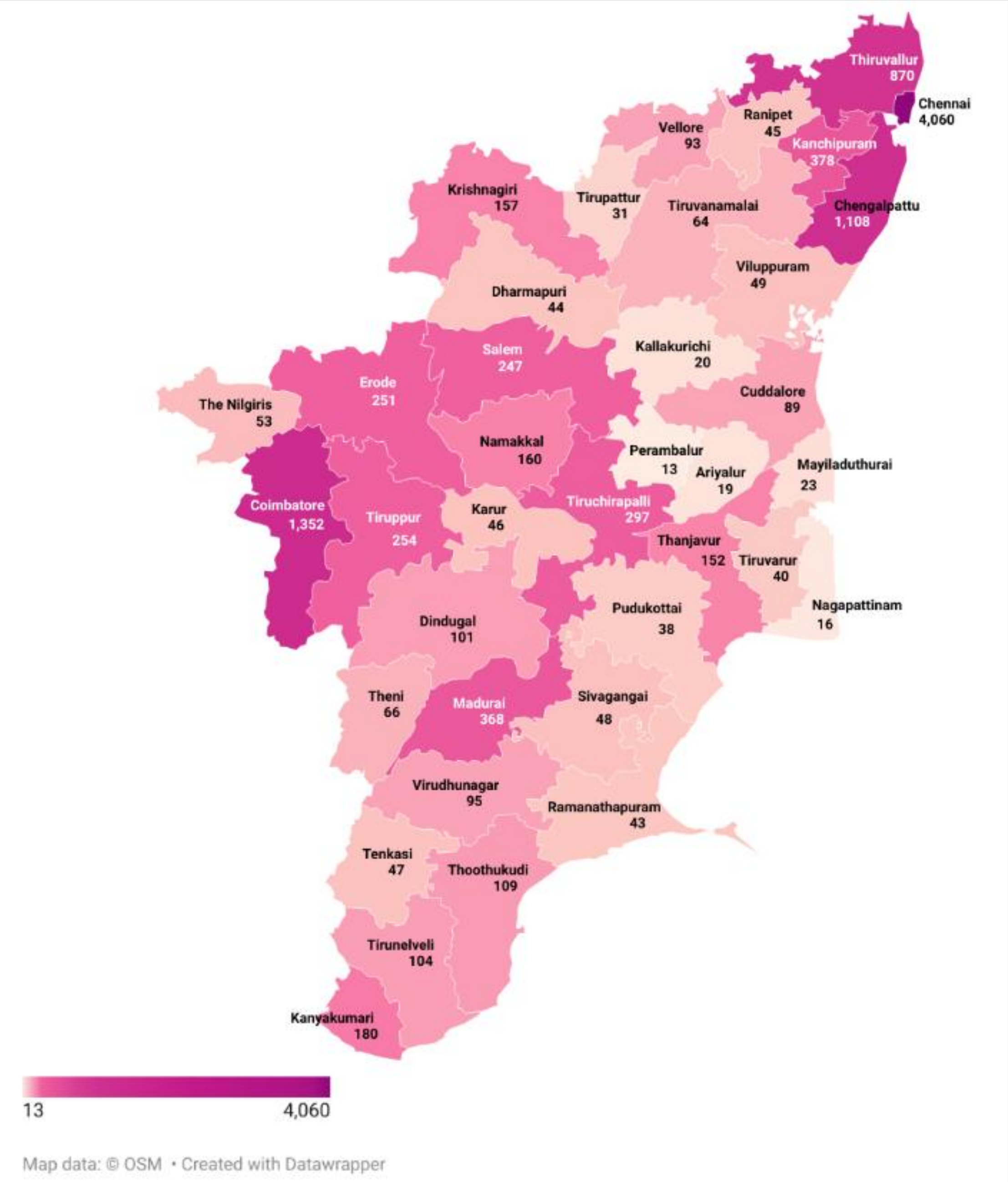
- Thiru. M.K. Stalin
Hon’ble Chief Minister of Tamil Nadu

Tamil Nadu plays a key role in India becoming a leading start-up nation. With over 11,000 DPIIT- recognised start-ups and attracting around $504.15 billion in start-up funding in 2024, Tamil Nadu combines traditional industrial strength with emerging technological skills. To advance further, the state must promote its opportunities to entrepreneurs and start-up founders while also tackling the challenges they face.



Source: YNOS Venture Engine

Figure 1.1: Year-wise distribution of start-ups incorporated in the state



Source: YNOS Venture Engine

Map 1.1: District-wise distribution of DPIIT-registered start-ups in Tamil Nadu

The state's start-up landscape has been shaped by several distinct advantages: a deep talent pool from its 570+ engineering colleges, robust manufacturing infrastructure, and strategic coastal location. Tamil Nadu's traditional strengths in automotive, textiles, and manufacturing have created a fertile ground for B2B start-ups, while its growing software industry has fostered innovation in AI, IoT, and SaaS. StartupTN, launched in 2021, aims to establish Tamil Nadu as a global start-up destination.

Weighing down these positives have been certain structural challenges that merit careful examination. Despite Chennai's status as India's SaaS capital, start-ups have

struggled with issues ranging from access to early-stage funding to market access beyond the region. Similar to trend seen in other states, concentration of start-up activity has been largely concentrated in the large cities, and in Tamil Nadu, that privilege belongs to Chennai. While the share of other districts in the number of start-ups has been higher in Tamil Nadu, as compared to other states, there is scope for further improvement. Understanding these dynamics is crucial for stakeholders looking to tap into Tamil Nadu's start-up potential.

This report presents the evolving start-up ecosystem in Tamil Nadu through two interrelated dimensions: the significant opportunities emerging in the state's entrepreneurial landscape and the broad challenges that needs to be addressed to enable the start-ups leverage these opportunities. Through a detailed analysis of 422 start-ups across various stages and sectors, we identify key success factors and potential intervention areas that could accelerate the growth of the TN start-up ecosystem. While Tamil Nadu has established itself as a promising start-up hub, targeted interventions to address specific challenges while capitalising on unique regional opportunities could significantly enhance its competitive position in both national and global start-up landscapes.

1.2 Report Objectives

This report on Tamil Nadu's start-up ecosystem would be a strategic resource for entrepreneurs and policymakers (Figure 1.2). The study's findings and recommendations offer specific value across several dimensions:

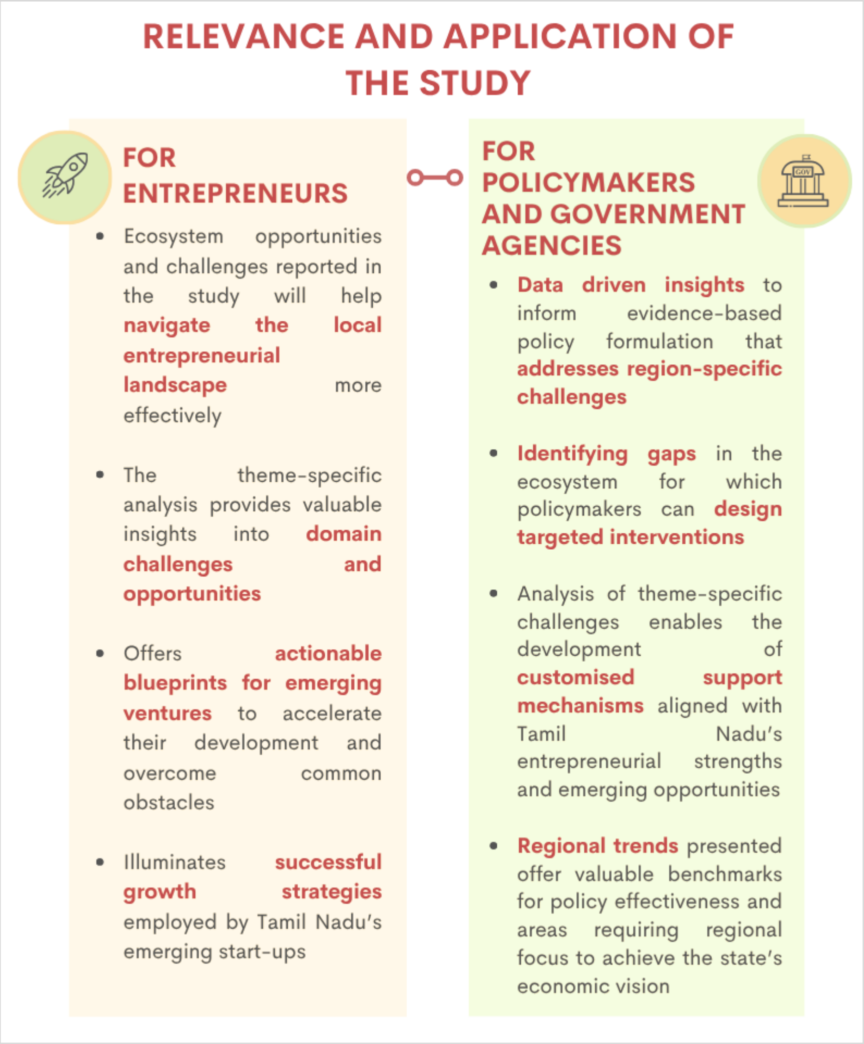


Figure 1.2 Applications of the Study

- Providing data-driven insights that help in evidence-based policy formulation. This allows policymakers to address challenges specific to different regions within Tamil Nadu.
- Identifying gaps within the start-up ecosystem, enabling policymakers to design targeted interventions. These interventions aim to stimulate balanced growth throughout the state.
- Analysing theme-specific challenges, which facilitates the development of customised support mechanisms. These mechanisms can be aligned with Tamil Nadu's entrepreneurial strengths and emerging opportunities.
- Presenting regional trends that offer valuable benchmarks for policy effectiveness. These trends also highlight areas requiring specific regional focus to help achieve the state's economic vision.
- Provides a comprehensive cross-analysis of Tamil Nadu's start-up policies against those of five other high-performing Indian states (Kerala, Gujarat, Karnataka, Odisha, and Maharashtra). This allows policymakers to evaluate their state's policy framework relative to peers and identify best practices adopted elsewhere.

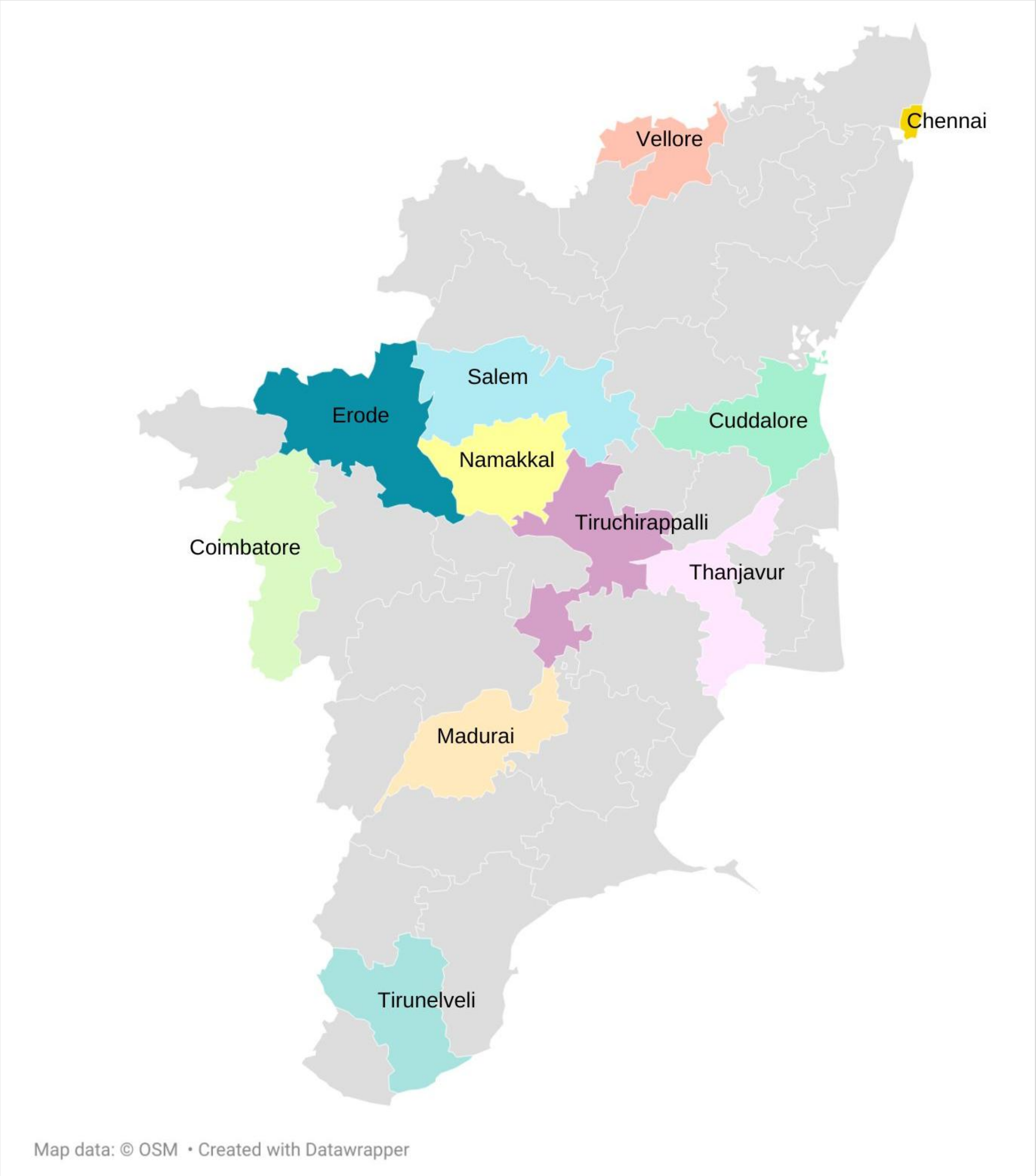
- Highlights a significant disconnect between policy intent and the actual experiences of founders regarding day-to-day regulatory challenges
- The study uniquely incorporates rich, nuanced qualitative data from Focus Group Discussions (FGDs) with start-up founders across the state

The report analyses the growth, opportunities, and challenges for start-ups in Tamil Nadu, identifies gaps in government initiatives, improves social inclusion, leverages public procurement for sustainable growth, and maps best practices for effective policy interventions. Through a comprehensive examination of the Tamil Nadu start-up ecosystem, the report uncovers the underlying factors driving start-up success and pinpoints areas where policy support is most needed. Insights obtained by engaging with entrepreneurs provide valuable insights into the current start-up landscape and offer actionable recommendations to foster a more inclusive and thriving start-up environment in Tamil Nadu.

The six key objectives addressed in the report are presented in Figure 1.3.

Figure 1.3: Objectives addressed

The coverage is the entire state (Refer Figure 1.4), representing different city and town classifications and regions within Tamil Nadu. By including Tier I, II, III and others, the report provides a comprehensive overview of the start-up ecosystem across the state. While doing so, the report also highlights the unique features of the start-up sub-ecosystems that exist in the different regions. This provides a holistic view, taking into account the varied economic, social, and cultural contexts within Tamil Nadu.



Map 1.2: Geographical spread of the study

1.3 Contextual Framework

This report undertakes a comprehensive examination of the diverse and interconnected elements that create a supportive start-up environment (Refer to Figure 1.4). Key components included entrepreneurs, funding sources, support organisations, educational institutions, government and policymakers, industry and corporates, infrastructure, and community and culture.

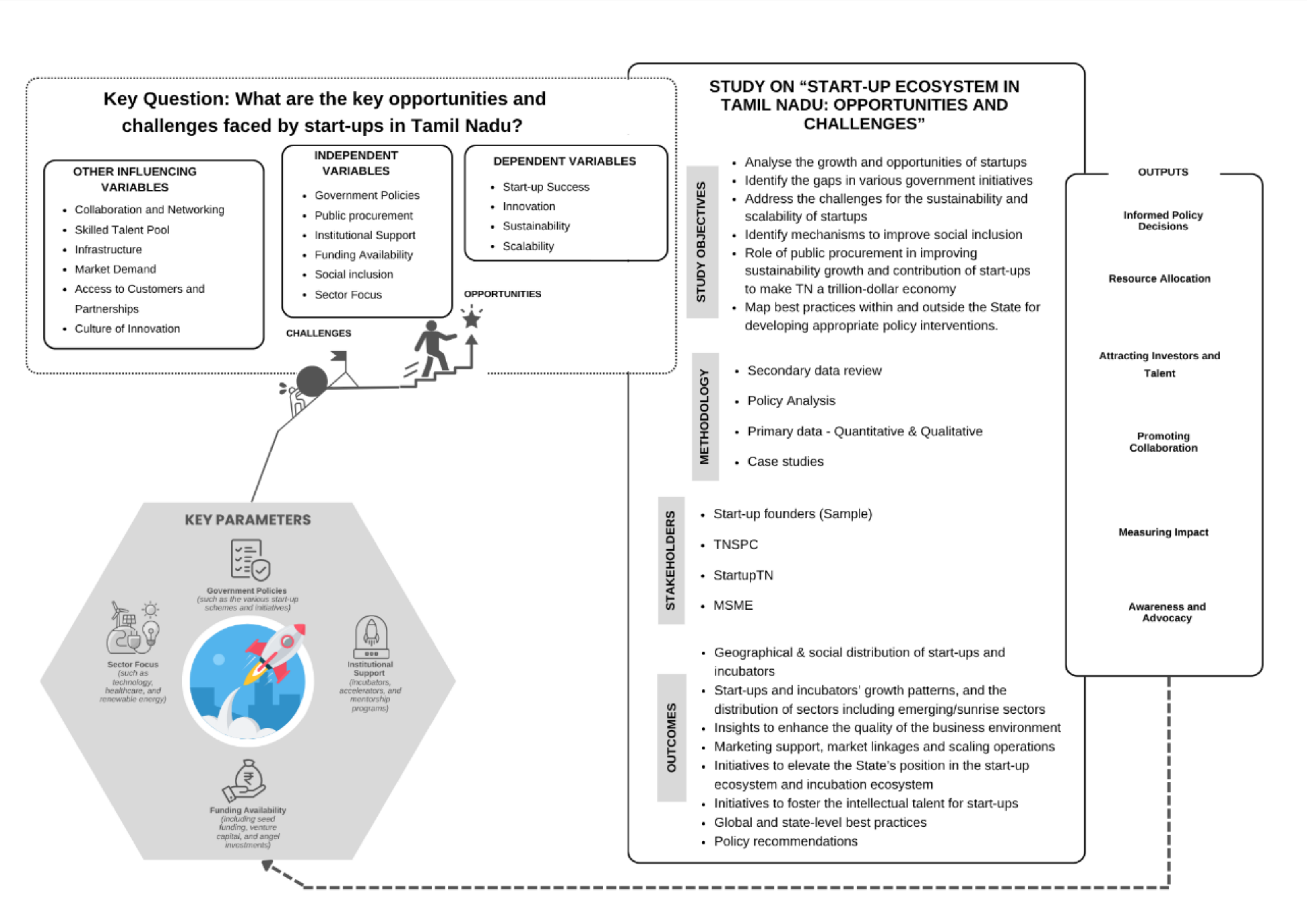


Figure 1.4: Conceptual Framework

The parameters in this framework include government policies (such as the various start-up schemes and initiatives), institutional support (incubators, accelerators, and mentorship programs), funding availability (including seed funding, venture capital, and angel investments), and sector focus (such as technology, healthcare, and renewable energy). These parameters influence the start-up ecosystem and shape the conditions under which start-ups operate. The report outlines how the above input parameters impact various outcome measures such as start-up success, innovation, sustainability (the ability of start-ups to sustain their operations and remain competitive), and scalability (the capacity of start-ups to grow and expand their business). Understanding of how the policy and contextual parameters influence outcomes would help in formulating suitable policy interventions for a thriving start-up ecosystem in the state.

The detailed study methodology including sample selection and data collection is presented in Annexure I.

Chapter 2
Policy Analysis

தெரிந்து செயல்வகை யான்றந் திறைமாட்சி
உரிந்து செயல்வேண்டும் வேறு (Thirukkural 47)

A ruler must act with discernment; greatness lies in thoughtful execution.

HIGHLIGHTS
▪ The nodal Tamil Nadu start-up policy has been implemented by the Department of Medium, Micro and Small Enterprises. However, the subject of start-ups also finds mention in the policy agenda of several other ministries and departments, indicating the primacy given to start-ups in the state government's policy agenda. ▪ There were over 900 initiatives pertaining to start-ups in the state in various phases of implementation in different ministries and departments of which over 25 percent of the schemes were through the Tamil Nadu Startup and Innovation policy.

HIGHLIGHTS

▪ Targeted policy initiatives strive to achieve the vision of the government to transform the state into a knowledge-based economy and improve the success rate of start-ups in the state
▪ Policy initiatives predominantly target the early-stage start-ups followed by validation stage. Dedicated initiatives across the policy spectrum ensures effort towards equitable growth across the sector
▪ The thematic analysis of Tamil Nadu start-up relevant policies, both the horizontal and sector specific, highlights how the policies and initiatives support and align with the vision of the state's growth framework to achieve a $1 trillion economy by 2030. Taken together, the objectives of the policies have been to:
  ○ Enhance the quality of business environment to secure the future of the start-up sector
  ○ Elevate State's position in start-up and incubation ecosystem both domestically and globally
  ○ Reinstate and sustain as a premier state for intellectual talent pool to build innovative, robust products for domestic and global markets
  ○ Accentuate job creation, reduce regional disparity and establish equitable growth opportunities to ensure uniform wealth creation

This chapter analyses policies that pertain to start-ups in Tamil Nadu and also benchmark with the start-up policies from four other Indian states. The objective of this analysis is to highlight the role of policy framework in new venture creation and its sustainability. In general, most states have a nodal policy for start-ups (what can be referred as the horizontal start-up policies), complemented by sector specific policies (what can be referred as the vertical start-up policies) that include the support provided for start-ups in the respective sectors. The analysis of the start-up policy landscape in Tamil Nadu includes both the horizontal and the sector specific policies. However, since the availability of sector specific policies can vary between states, only the nodal start-up policies have been used for comparison across states.

The analysis explores how the different policies address the key requirements of start-up founders: securing capital, establishing professional networks, managing regulatory compliance, and accessing essential resources and guidance.

2.1. Tamil Nadu Start-up Relevant Policies: A Thematic Analysis

2.1.1 Context

A State's Start-up Policy sets the framework that facilitates access to funding, mentorship, and market access support required by start-ups. Additionally, it also contains provisions to incentivise key start-up stakeholders such as incubators, and

institutions of higher education among others to promote holistic development of the state's start-up ecosystem. Tamil Nadu Startup and Innovation Policy 2018-2023 was initiated by the Department of Micro, Small and Medium Enterprises (MSME) to provide an enabling, innovative start-up ecosystem in the State. Implementation of the policy was envisioned to enable the State to emerge as the "Knowledge Capital" and "Innovation Hub" of the country. In 2024, the government announced the revised Tamil Nadu Startup and Innovation Policy. The latest policy envisages start-ups as not just engines of economic growth but game changers in alleviating poverty, reducing inequality and increasing social mobility. The focus of 2024 Tamil Nadu Startup and Innovation Policy has been to establish a democratised ecosystem that fosters innovation and entrepreneurship, transforming the State into a land of opportunities for the development of both technologically groundbreaking and socially impactful enterprises by individuals from all walks of life.

2.1.2 StartupTN initiative

Government of Tamil Nadu has set up StartupTN, as the Nodal Agency to implement the Tamil Nadu Startup and Innovation Policy, 2024. It was established as a Section 8 company under the Department of Micro, Small and Medium Enterprises. in 2021 and is led by a dedicated team headed by the Mission Director, who serves as the Nodal Officer for implementing various initiatives outlined in the Startup and Innovation Policy. The mission is led by the CEO and governed by a Board of Directors appointed by the Government of Tamil Nadu, which periodically reviews and guide's progress.

The StartupTN initiative was accompanied by several policy reforms and measures to boost entrepreneurship and economic development. The initiative encouraged innovation and entrepreneurship with proactive support and incentives. StartupTN stood out due to its scale and capacity in attracting the attention of multiple ministries and departments to have their own start-up programmes. As a result, the StartupTN initiative garnered momentum across segments of social strata, particularly the youth. While government support for start-ups existed even prior to the launch of the Nodal agency, the initiative helped to build momentum and convey the strong policy imperative for the development of start-ups.

2.1.2.1 Creating a Statewide Agenda

"Formulating policies for the future and enabling industrial and economic growth is a prerequisite for a state's development"[1] – Hon'ble Chief Minister of Tamil Nadu Thiru M.K. Stalin at Tamil Nadu Global Investors Meet 2024

The Tamil Nadu government unveiled on January 7, 2024, a comprehensive 'Growth Framework' to act as a roadmap blueprint[2] for the state to achieve a $1 trillion economy by 2030. The State's strategy for accelerated economic growth aims to bolster the GDP, increase employment, ensure economic stability, promote equity, and enhance the overall social well-being of its citizens. The framework outlines seven critical tenets (Figure 2.1) to act as catalysts for achieving this goal: investments, human capital, innovation, market efficiency, governance, infrastructure, and holistic inclusive growth.

Source: CREST, IITM

Figure 2.1 Critical Tenets identified in Growth Framework

The framework envisions attracting $3.8-4.3 trillion in investments (public and private) to expedite growth and establish itself as a preferred destination for foreign direct investment (FDI), thereby facilitating local investments for expansion. The focus towards talent pool has been targeted to add 60 lakh women to the workforce through upskilling and reskilling, along with transitioning 1 crore individuals participating in the economy into high-value jobs. Strategic industry-academia partnerships to pioneer innovation have been proposed to become an R&D citadel and a preferred destination for start-ups in the region. The roadmap also intends to foster an industry-friendly climate by ensuring seamless access to land, labour and capital and secure a leading position in 'Ease of Doing Business' by streamlining government-to-business (G2B) processes and relaxing the regulations. It further recommends robust policymaking by strengthening institutional and regulatory frameworks and delivering transparent and efficient governance through established specialized agencies. The roadmap envisions developing sustainable and resilient infrastructure which includes creating robust social and commercial spaces, seamless transport networks, and sustainable water and sanitation systems, to lay the foundation for growth. The strategy for holistic and inclusive growth ensures that the economic growth reaches all districts and regions of the state, thereby driving prosperity for all sections of society. The state's roadmap exclusively focuses on regionally holistic sustainable practices, socially inclusive strategy and climate consciousness in all the initiatives.

Tamil Nadu recognizes start-ups as pivotal engines for economic transformation, with the state boasting a vibrant ecosystem. The growth framework aims to enhance this ecosystem further through multifaceted strategies highlighting key sectoral initiatives and

select big-bets, which could be game-changing opportunities for Tamil Nadu to position itself as the country's premier start-up hub.

2.1.3 The Start-up Policy Spectrum in Tamil Nadu

Tamil Nadu as the 'Best Performer' under the Union Government's 2022 State Startup Ranking[3], hosts start-ups from a wide spectrum of sectors such as aerospace, defence, space, satellite, SaaS, manufacturing tech, augmented and virtual reality, IoT, chip making, agri-tech, food-tech, and climate-tech, as well as some in nascent areas like quantum computing, Web3, and data science[4]. Therefore, to gain a holistic understanding of significant factors contributing towards start-up growth, it is imperative to analyse both sector agnostic and sector specific policies of the state. Policies with start-up relevant initiatives acknowledged by StartupTN[5] and other State Government bodies such as TIDCO[1] and ITNT[2] (Table 2.1) as contributors towards strengthening the state's start-up ecosystem, have been included in the analysis (Figure 2.2).

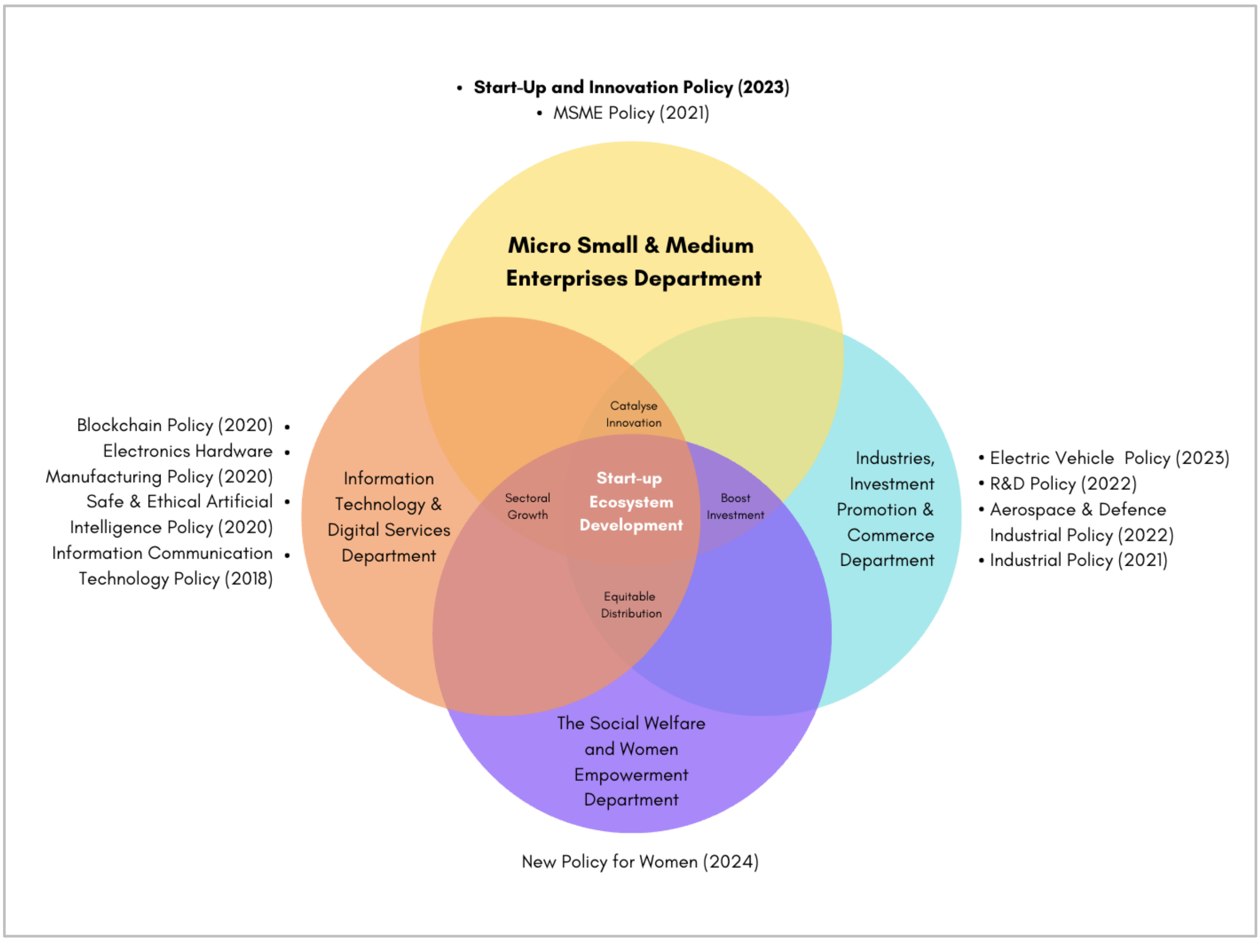
S.no.	Name of the Policy	Vision
1	**Draft Tamil Nadu State Deep Tech Startup Policy (TNSDTSP)	To position Tamil Nadu as India's premier deep tech hub—fueling innovation, industrial growth, and MSME empowerment—while establishing a cutting-edge deep tech and emerging tech ecosystem that accelerates our journey toward a $1 trillion economy
2	**Draft Space Industrial Policy	Creating a robust, world-class, high technology, efficient Space Industrial manufacturing/service ecosystem
3	Tamil Nadu State New Policy for Women	To ensure social justice for all and provide women access to their rightful entitlements, enabling them to lead a harmonious and peaceful life with equitable opportunities to realise their true potential and aspirations
4	Tamil Nadu Start-Up and Innovation Policy	The main focus of this policy framework is to establish a democratized ecosystem that fosters innovation and entrepreneurship, transforming the State into a land of opportunities for the development of both technologically groundbreaking and socially impactful enterprises by individuals from all walks of life.
5	Tamil Nadu Electric Vehicle Policy	The Government of Tamil Nadu has a vision of attracting Rs. 50,000 crores worth of investments in EV manufacturing, creation of 1.5 lakh new jobs during the Policy period, and development of a robust EV ecosystem in the State.
6	Tamil Nadu R&D Policy	Aims to transform Tamil Nadu into a knowledge-based economy by 2030 driving manufacturing and service excellence.
7	Tamil Nadu Aerospace and Defence Industrial Policy	To make Tamil Nadu the preferred destination to invest, innovate and create products and services in the Space Industrial Sector.

[1] GOVERNMENT OF TAMIL NADU
[2] iTNT HUB

Sno	Name of the Policy	Vision
8	Tamil Nadu Industrial Policy	Make Tamil Nadu the numero uno destination to invest, innovate and create products and associated services
9	Tamil Nadu MSME Policy	Make Tamil Nadu the most vibrant ecosystem for MSMEs/ Start-Ups to thrive and scale-up. Attract new investments worth ₹ 2,00,000 crore in the sector by 2025. Create additional employment opportunities for 20 lakh persons in the sector.
10	Tamil Nadu Blockchain Policy	Provide faster, efficient, secure and transparent delivery of services to the people of Tamil Nadu by building new e-Governance Blockchain applications and to augment existing Governance workflows and processes with Blockchain.
11	Tamil Nadu Electronics Hardware Manufacturing Policy	To transform Tamil Nadu into an innovative and a globally competitive Electronics System Design and Manufacturing (ESDM) destination, by providing adequate infrastructure and supporting ecosystem to ESDM companies
12	Tamil Nadu Safe and Ethical Artificial Intelligence Policy	To allow harnessing the power of Artificial Intelligence for the public good while keeping it safe and ethically compatible with human values.
13	Tamil Nadu Information Communication Technology Policy	To promote the IT and ITeS sector and to increase software production, exports and employment generation in Tamil Nadu especially in the Tier-II cities. The focus areas include incentivising investment, employment and intellectual capital creation, special attention to start-ups, MSMEs and employment of women

Source: CREST, IITM

Table 2.1: Overview of Tamil Nadu start-up relevant policy vision statements



Source: CREST, IITM

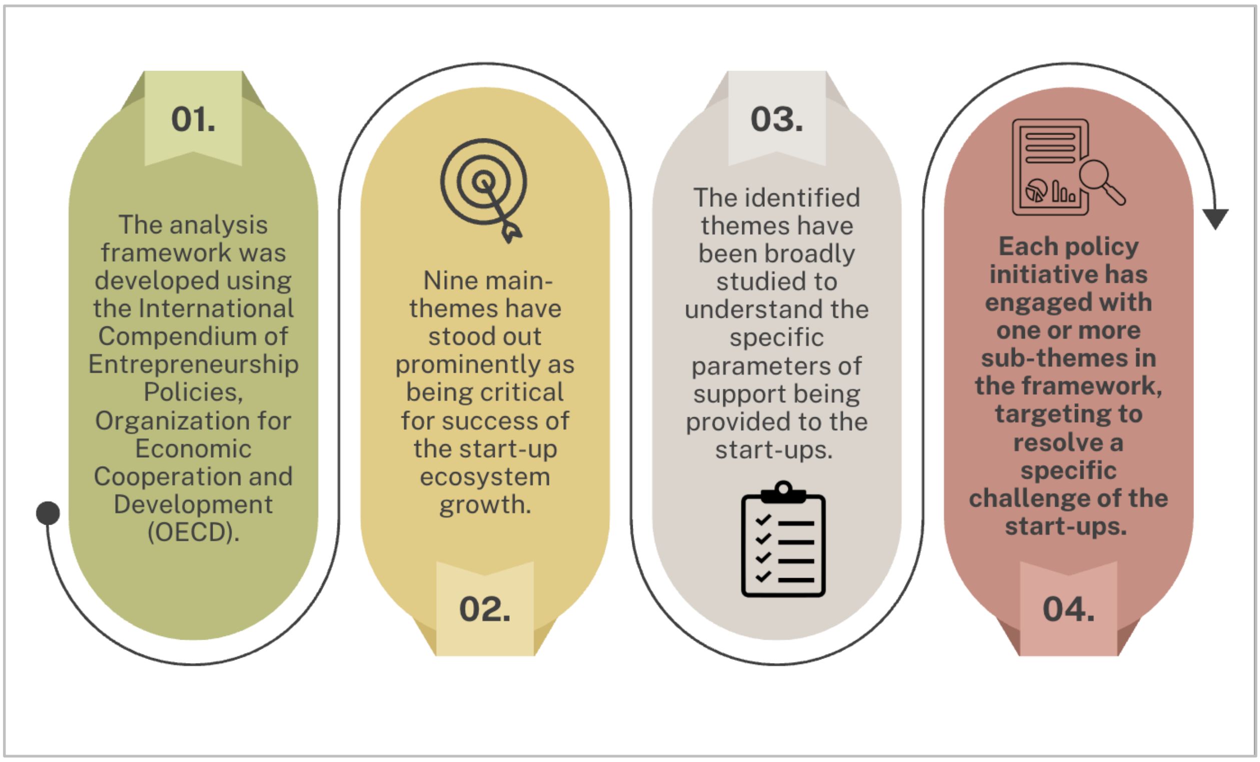
Figure 2.2: Overview of Tamil Nadu start-up relevant policies

2.1.4 Methodology

The websites of various ministries and government agencies such as StartupTN, TIDCO and ITNT have been accessed to source primary data pertaining to start-up relevant policies with an intent to summarize the content and policy framework. The 9 critical main themes (Annexure 2) essential for the analysis of support extended to start-ups by the Tamil Nadu start-up policies have been identified using key evaluation framework[3]. The main themes have been further classified into 29 subthemes (Figure 2.4) to enable in depth analysis and identification of specific engagement avenues of the policies. The analysis has been done to understand the emerging themes and trends on the following two aspects of Tamil Nadu start-up ecosystem (Figure 2.3, Figure 2.4).

1) Policy initiatives influencing the start-up ecosystem growth
2) Policy initiatives targeting specific business stages of start-ups

[3] Evaluation Criteria | OECD

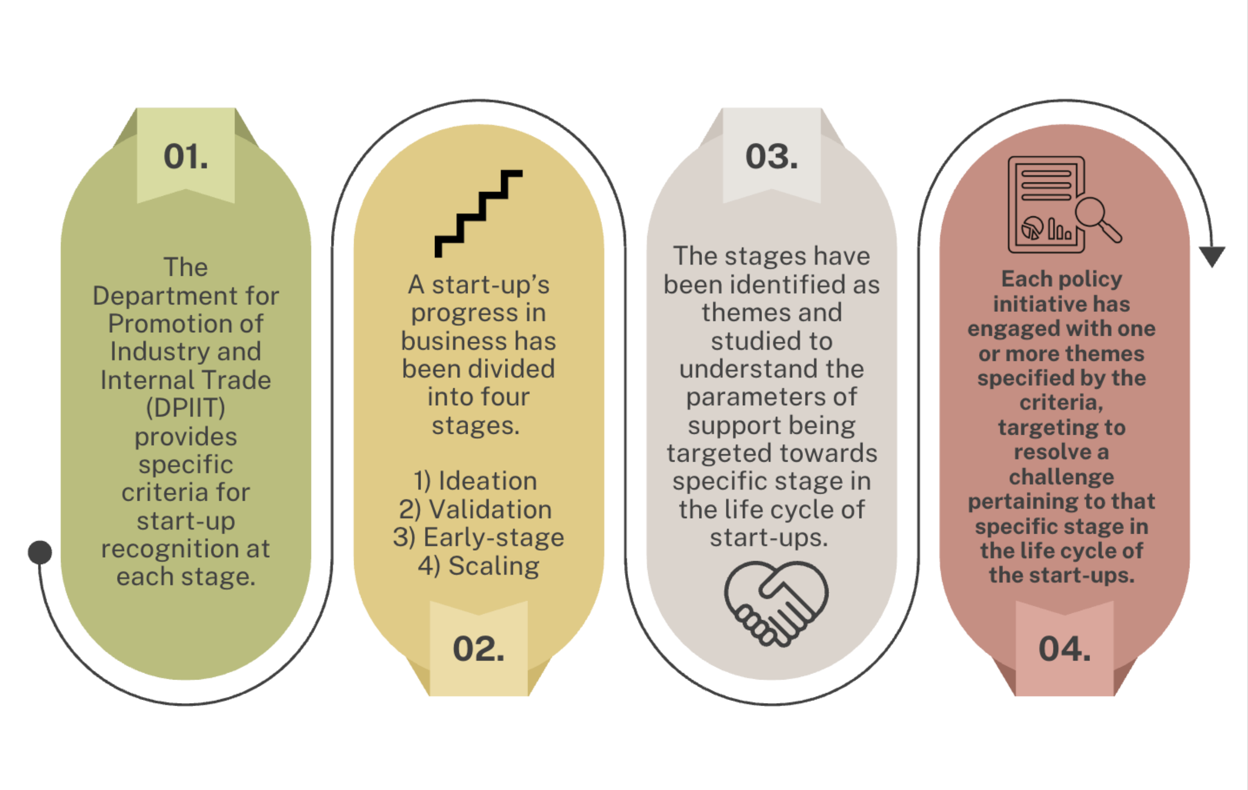


Source: CREST, IITM

Figure 2.3: Emerging Themes and trends - Start-up Ecosystem Growth

Source: CREST, IITM

Figure 2.4: Themes and Subthemes identified for start-up ecosystem growth analysis



Source: CREST, IITM

Figure 2.5: Emerging Themes and Trends – Life Cycle of Start-ups

2.1.6 Emerging Themes and Trends – Tamil Nadu Start-up Ecosystem Growth

2.1.6.1 Analysis – Overview

The scope of the thematic analysis extends to a total of 11 Tamil Nadu start-up relevant policies as acknowledged by StartupTN website and does not include subsequent Policy Notes or Government Orders pertaining to the policies under analysis. Additionally, 2 start-up relevant policies in draft stage acknowledged by TIDCO and ITNT have also been considered for this analysis, due to their significance and relevance to the policy research. A total of 1,127 thematic initiatives collected on the 13 policies using the methodology identified for the analysis, has been captured on an excel spreadsheet. The spreadsheet data has been analysed for policy centric data captures (Annexure 2, Figure 1). and theme centric data captures (Annexure 2, Figure 2).to maximise the number of unique findings within the purview of this analysis.

Policy Centric Analysis: To standardize the data values policy wise, the number of initiatives targeting a main theme within a policy has been accounted as weighted average[7] of the total number of initiatives distributed within that specific policy. The spreadsheet with the weighted average of the initiatives for each of the 13 policies across the 9 main themes have been captured as a heat map[8] (Annexure 2, Figure 3). Figure 2.6 shows the intensity of engagement of policies across each of the main themes. Analysis has been done to broadly understand the two main thematic focus areas within each of the policies (Figure 2.7). It has been observed that Infrastructure Support and Funding

and Finance are the recurring focus themes supported in most policies followed by Regulatory Reforms and Support Systems. Equitable growth has been found to be the strong focus of Startup New Policy for Women, Industrial Policy and Safe and Ethical Artificial Intelligence Policy. Skill Development programs and Market Access have been observed to be actively engaged by Startup New Policy for Women and Deep Tech Startup Policy respectively.

Source: CREST, IITM

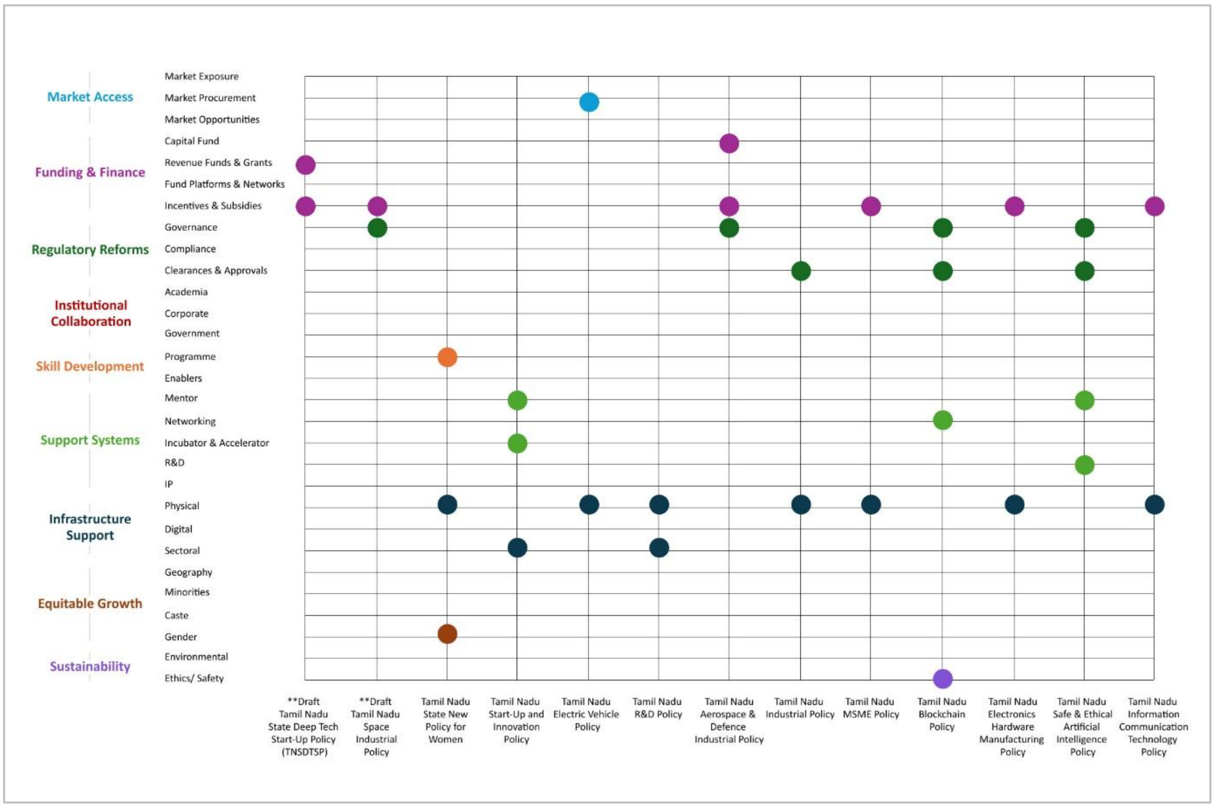
Figure 2.6: Analysis of policies using weighted average method

Source: CREST, IITM

Figure 2.7: Top two focus themes by Policy

Further to the understanding of broader focus areas of the policies, analysis of policies across 29 subthemes has been done to gain deeper insights into the scope and intensity of the engagements (Annexure 2, Figure 4). The Figure 2.8 shows the two highest subtheme focus areas of initiatives within each policy. One or more sub-themes have been found to carry the same weighted average within a policy. Physical Infrastructure support has been one of the key themes addressed in nearly all the policies and would play a foundational role in empowering start-ups to thrive and contribute to the broader economy. State government supported infrastructures such as incubation centres, innovation hubs, and technology parks would provide start-ups with access to critical resources, cutting-edge facilities, and collaborative networks invaluable for their growth and development. Most importantly, it would reduce operational costs for start-ups during the early stages of growth making it easier to manage their finances and sustain. Incentives and Subsidies has been observed as the next highest recurring sub-theme featuring in Space Industrial Policy, Deep Tech Startup Policy, MSME Policy, Information and Communication Technology Policy, Electronics and Hardware Manufacturing Policy and Aerospace and Defense Policy. Incentives and subsidies would encourage industrial development in these sectors through financial and promotional assistance. They would

act as a motivational factor to attract prospective entrepreneurs to enter the start-up ecosystem against the existing competitive market leading to entrepreneurial development. This form of support would also encourage entrepreneurs to launch their enterprises in industrially backward areas to bring about industrial development uniformly in all regions. The policies with focus on Governance include Space Industrial Policy, Block Chain Policy, Electric Vehicle Policy, Safe and Ethical Artificial Intelligence Policy and Aerospace and Defence Policy. The nascent stage of most of these sectors would require considerable interventions by the Government agencies through several regulatory measures. Initiatives toward Governance would monitor, enforce, facilitate and build common platforms to ensure efficient and effective implementation of the policies. To attract investments through improved ease of doing business, Clearance and Approval has been engaged by Block Chain Policy, Safe and Ethical Artificial Intelligence Policy and Industrial Policy. Two of the thirteen policies have been observed to focus on Mentorship support. In the context of start-ups, mentor support would play crucial roles in helping founders navigate the complexities of entrepreneurship, make more informed decisions, and achieve their goals more efficiently.



Source: CREST, IITM

Figure 2.8: In depth sub-themes focus by Policy

Theme Centric Analysis: To standardize the data values subtheme wise, the number of initiatives targeting a subtheme within a policy has been accounted as weighted average of the total number of initiatives under the subtheme distributed across all 13 policies. The spreadsheet with the weighted average of the initiatives for each of the 29 subthemes across the policies have been captured as a heat map (Annexure 2, Figure 5).

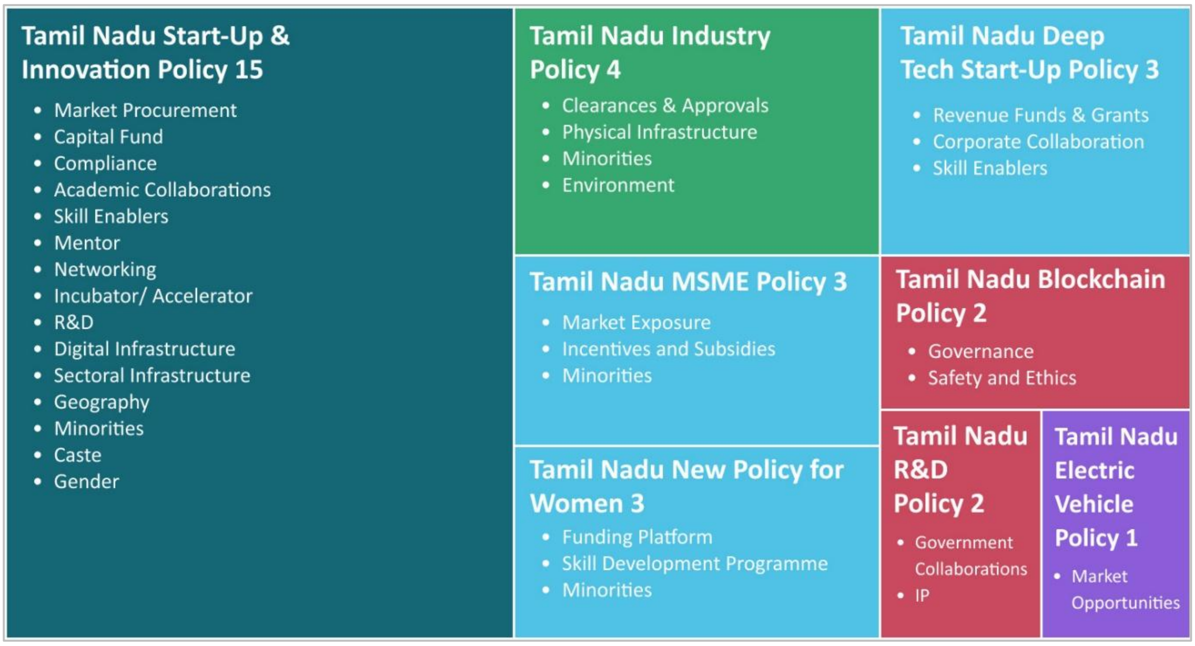
Analysis has been done to broadly understand subthemes in terms of its scope and extent of its presence within and across policies. Figure 3.9 shows the highest intensity of engagement of subthemes across each of the policies.

Source: CREST, IITM

Figure 2.9: Analysis of sub-themes using weighted average method

Out of a total of 29 subthemes, Startup and Innovation Policy has the maximum number of initiatives in 15 subthemes, the highest amongst the 13 policies under analysis. The policy has uniformly focused on nearly all areas critical to start-up growth (Figure 2.10). It can also be understood that Deep Tech, New State Policy for Women and MSME policies each dominate 3 sub themes, Industrial Policy dominates 4 sub-themes while other policies dominate 2 or less subthemes. The reason for a lesser number of dominating sub-themes could either be that the sub-themes may not be relevant to the objective of the policy, or it could be a nascent sector with initiatives still evolving to target all critical tenets of a start-up. It can also be observed that leading sub-themes in all the policies are aligned with the primary objectives of the policies. For instance, Deep Tech

Startup policy focuses on corporate collaborations for investments, grants and commercialization, Blockchain Policy has the maximum number of initiatives targeting Governance to ensure public data protection, MSME Policy targets Incentives and Subsidies to promote small scale entrepreneurs transition into start-ups, EV Policy targets Market Exposure to support market adoption and transition by the public and so on.



Source: CREST, IITM

Figure 2.10: Identifying sub-themes dominated by the policy

2.1.7 Insights

Beyond overall understanding of focus areas of Tamil Nadu policies, policy wise in-depth analysis to understand the forms of support extended have been attempted (Annexure 2). The key focus areas of the policies have been identified based on the three highest weighted average of the initiatives within each policy. One or more sub-themes within a policy have been found to carry the same weighted average.

Tamil Nadu start-up relevant policies have been observed to comprehensively address all the 29 sub-themes used as critical tenets of start-up support for this analysis to encourage entrepreneurship in the state. The Startup and Innovation Policy, Deep Tech Startup Policy and R&D Policy would provide varied forms of engagement to improve sectoral contributions to start-up eco system through development of infrastructure, human capital, incubation and mentor support in collaboration with government and academic institutions. While Startup and Innovation Policy would intend to encourage diverse participation in the ecosystem from various segments of society, Information Technology and Communication Policy would support regional growth even beyond Tier II and Tier III cities including rural locations to improve job creation. Space Industrial and Deep tech Policies would exploit all forms of institutional collaborations especially corporate engagement for investments, grants and scaleup support. New State Policy for Women would ensure safe and equitable opportunities for women participation in work

force. MSME Policy would provide incentives and subsidies targeted towards a specific growth stage of a start-up. This strategy offers meaningful support to MSMEs throughout their growth journey.

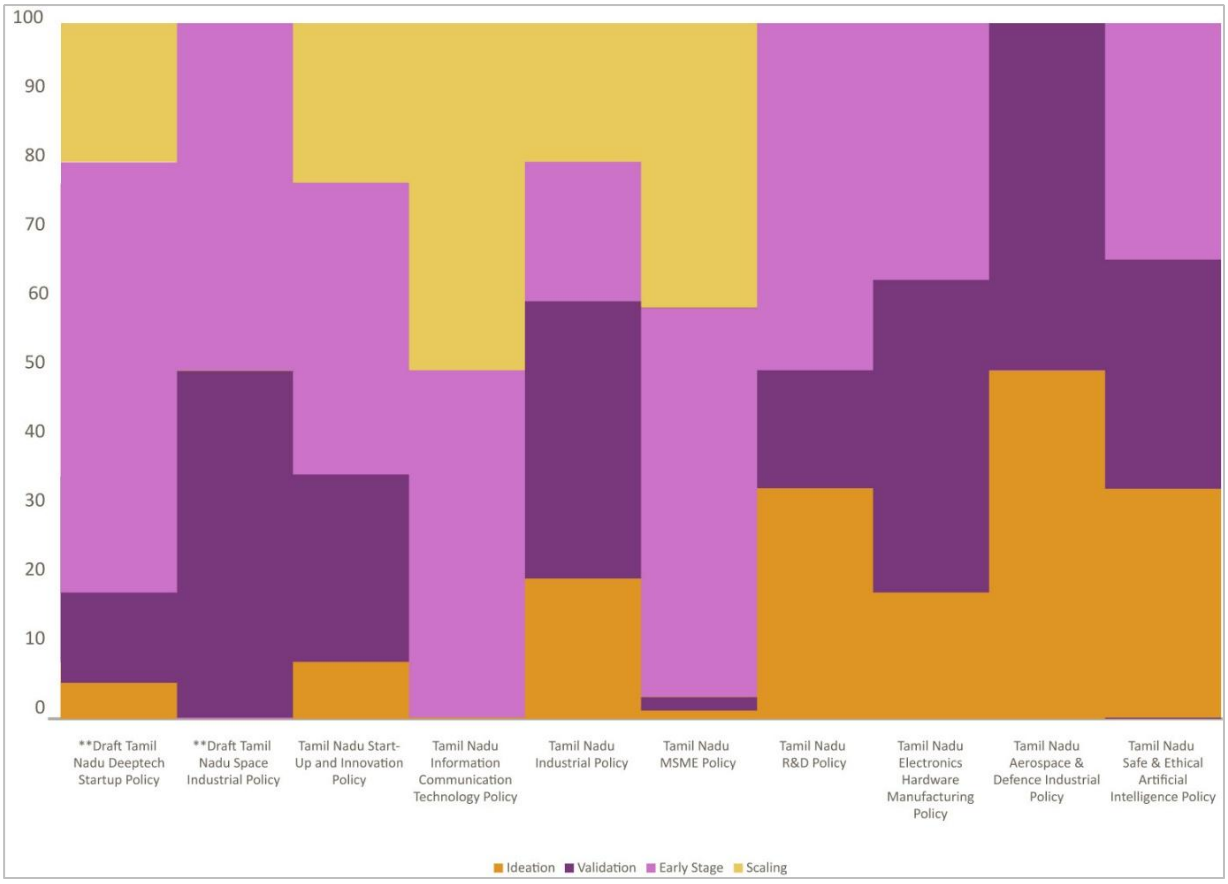
Infrastructure development through Industrial Policy initiatives would focus on land allotment to develop industrial estates and other business structures to support more start-up ventures. The Electronics Hardware Manufacturing Policy would provide infrastructure support along with a range of incentives and subsidies to attract investments and promote the growth of the sector. MSME Policy and Deep Tech Policy would also provide market exposure to start-ups through public procurement and other avenues as a launchpad to springboard their products and services. Market adoption initiatives would be launched by Electric Vehicle Policy to address the demand side of EV sector through power tariff incentives and transition support while Supply side of EV sector through robust charging and manufacturing infrastructure.

Building environmentally sustainable infrastructure, physical and digital connectivity and industrial townships along with regulatory reforms would encourage entrepreneurship in the Industrial and Deep Tech sectors. Aerospace and Defence Policy and Space Industrial Policy would monitor implementations through adequate regulatory measures due to security concerns involved with these sectors. Funding and infrastructure support would be the focus of the policies to encourage more start-up participation in this sector. Initiatives towards Single Window clearances for entrepreneurs, product development and testing facilities by Deep Tech Startup Policy, Electronics Hardware Manufacturing Policy and Industrial Policy would attract growth of innovative start-ups in these sectors. Safe and Ethical Artificial Intelligence Policy and Blockchain Policy would focus on building a safe, ethical and robust framework to build and deploy AI applications to efficiently reach Government services to the citizens.

2.1.8 Emerging Themes and Trends – Life Cycle of Start-ups

2.1.8.1 Analysis - Overview

The scope of this analysis extends to a total of 13 Tamil Nadu start-up relevant policies as acknowledged by StartupTN, TIDCO and ITNT. The data collected on the 13 policies using the methodology identified for the analysis, has been captured on an excel spreadsheet. Only 10 of those policies with targeted initiatives towards at least one of the business stages have been considered for the analysis. The spreadsheet data with a total of 93 initiatives has been analysed for policy centric data captures (Annexure 2, Figure 19) To standardize data values, the number of initiatives targeting a business stage within a policy has been accounted as weighted average[11] (Annexure 2, Figure 20) of the total number of initiatives distributed within that specific policy (Figure 2.11).



Source: CREST, IITM

Figure 2.11: Analysis of policies using weighted average method

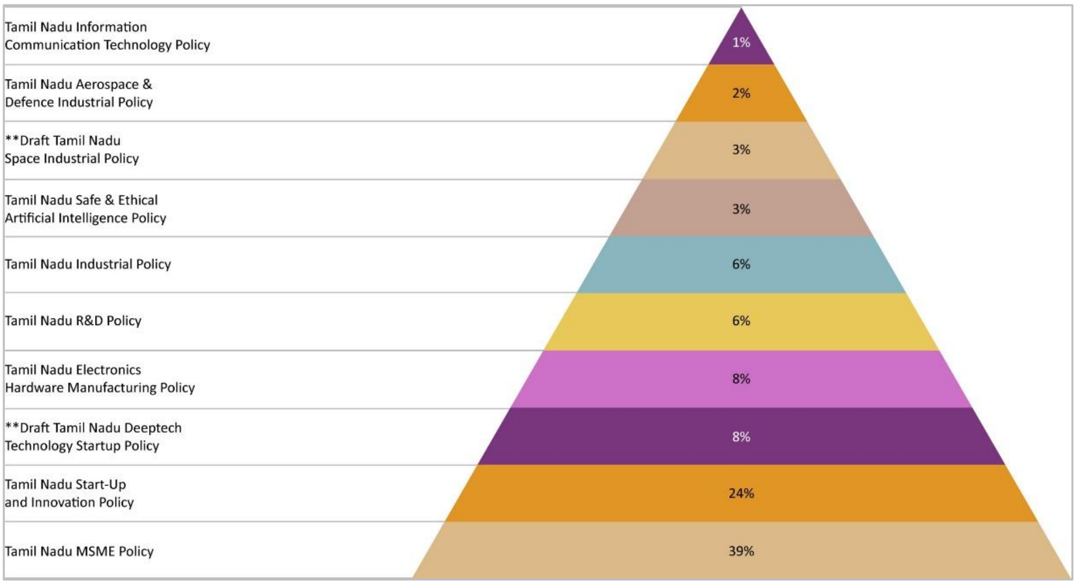
Startup and Innovation Policy, MSME Policy and Industrial Policy supports all stages of business with targeted initiatives (Table 2.2). While Information Communication Technology Policy and Aerospace and Defence Policy focuses on only two business stages of start-ups.

Stages of Start-up	Supporting Policies
Ideation	Startup & Innovation, MSME, Electronics Hardware Manufacturing, Industrial, R&D, Aerospace & Defence, Safe & Ethical Artificial Intelligence, Draft Space Industrial Policy
Validation	Startup & Innovation, MSME, Electronics Hardware Manufacturing, Industrial, R&D, Aerospace & Defence, Safe & Ethical Artificial Intelligence, Draft Deeptech Startup Technology Policy, Draft Space Industrial Policy
Early Stage	Startup & Innovation, MSME, E Electronics Hardware Manufacturing, Industrial, R&D, Information Communication Technology, AI, Draft Deeptech Startup Technology Policy, Draft Space Industrial Policy
Scaling	Startup & Innovation, MSME, Industrial, Information Communication Technology, Draft Deeptech Startup Technology Policy

Source: CREST, IITM

Table 2.2: Policies supporting the life cycle of start-ups

MSME Policy supports the start-ups with maximum targeted business stage initiatives followed by Startup and Innovation Policy (Figure 2.12). The strong alignment of the two policies to the start-up sector would justify the targeted initiatives.



Source: CREST, IITM

Figure 2.12: Number of Initiatives targeting business stages of start-ups

2.1.8.2 Insights

Tamil Nadu start-up policy wise in-depth analysis to understand the forms of support extended to each business stage of start-ups have been attempted (Annexure 2).

Each stage in the life cycle of a start-up requires different types of support to help the start-ups overcome their own unique challenges and achieve their goals. Tamil Nadu start-up policies have been observed to objectively support specific stages of start-ups aligning with the needs and goals of the sector. Predominant support from the policies has been found to reach start-ups in the early stage followed by the validation stage. Startup and Innovation Policy and Industrial Policy would uniformly address all 4 business stages of the start-ups. While the former would focus marginally more on the early-stage start-ups, the latter would focus more on the validation stage. Along with Industrial Policy, Space Industrial Policy, Electronics Hardware Manufacturing Policy, Aerospace and Defence Policy and Safe and Ethical Artificial Intelligence Policy would provide focused support for validation to encourage quick transition of innovative ideas into market viable products. Early-stage support would be provided by all the policies as it is critical to sustain and improve the success rate of start-ups. Deep Tech Policy, R&D Policy, Aerospace and Defence Policy and Safe and Ethical Artificial Intelligence Policy would support ideation to encourage innovative products and processes. Information Communication Technology Policy, Deep Tech Policy and MSME Policy would focus on the scaling stage of the start-ups. While scaling support is imperative for an ICT and

Deep Tech products due to its ease of mass market adoption, this support would assist MSME units to transition into start-ups by scaling operations efficiently.

2.9 Summary

Though in-depth analysis of each of the Tamil Nadu start-up relevant policies show their alignment with their respective policy objectives, the overview analysis brought forward their collective contribution to the larger objective of the state - building a strong start-up ecosystem to achieve a $1 trillion economy by 2030. The cohesive focus of Tamil Nadu's start-up policies towards Infrastructure and Incentives and Subsidies shows the state's strong intention to strengthen and grow the start-up ecosystem by encouraging potential entrepreneurs from across the state, across sectoral and social background. The state intends to implement regulatory reforms and improve ease of doing business through strong Governance initiatives. Further, with targeted R&D and Mentoring initiatives, the policies strive to align with the vision of the government to transform the state into a knowledge-based economy and improve the success rate of start-ups in the state. Tamil Nadu's start-up ecosystem nurtures social entrepreneurship at its core. The state strives to transform into a land of opportunities for both technologically groundbreaking and socially impactful enterprises by formulating policies and schemes that ensure socio-economic development.

Tamil Nadu start-up policies intend to build a thriving start-up and innovation ecosystem to promote entrepreneurship in the state, enhanced by a business-friendly environment and peer support. By promoting equitable growth and creating opportunities for underrepresented groups Tamil Nadu is working towards creating a more inclusive and dynamic start-up ecosystem. Policies extending uniform support throughout the life cycle of a start-up, would provide a conducive environment for innovative start-ups and further strengthen the Tamil Nadu start-up ecosystem.

2.2. Start-up Policy Landscapes in India: Best Practices

HIGHLIGHTS
▪ A comprehensive analysis of the "Tamil Nadu Innovation and Start-Up Policy (2023)" in comparison to the start-up policies of five-selected states in India: Kerala, Gujarat, Karnataka, Odisha and Maharashtra were conducted to bring out the best practices presented by the states towards start-up development. Tamil Nadu Start-up and Innovation Policy (2023) was found to be comprehensive and detailed in nature covering various aspects of the states start-up ecosystem and its key players. In comparison, the state has also brought out a greater number of total initiatives in favour of start-up development in its policy than the other states. Tamil Nadu policy covers

HIGHLIGHTS
283 initiatives and schemes across all themes within its policy with the closest states having a total of 129 and 125 across all themes covered. ▪ Overall, Tamil Nadu start-up policy was found to hold a favourable position in provision of initiatives and schemes in all themes apart from Regulatory Reforms and Sustainability. These themes could benefit from being further elaborated in addition to their current provisions in the start-up policy. ▪ The thematic analysis of the state policies gave insights on: o Difference in approach towards start up development by understanding the focus areas of each states start-up policy. o Identification of best practices amongst the states leading in provision of schemes and initiatives by sub- themes. o Efforts taken to improve social inclusivity within the start-up policies of the states.

This section presents a comprehensive analysis of the "Tamil Nadu Innovation and Start-Up Policy (2023)" in comparison to the start-up policies of five-selected states in India: Karnataka, Kerala, Gujarat, Maharashtra and Odisha, to bring out the best practices presented by the states towards start-up development.

The states were chosen based on their performance in the "States' Startup Ranking 2022 on Support to Startup Ecosystems"[4] It was published by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry Government of India. In the report, Tamil Nadu, Gujarat, Kerala, and Karnataka were placed in the Top Performer category, while Maharashtra and Odisha were in the Best Performer category. The categories were chosen to highlight the best practices that were adopted by the high performing states. This analysis was done using secondary data sources, mainly policy documents that were downloaded directly from the respective state government's start-up website. The policies were identified as the primary document for analysis based on their alignment with policies mentioned on the Start-up India website.

2.2.1 Background and Context of selected policies

This chapter examines the unique characteristics and economic landscape of the selected states, providing essential context for understanding their start-up policies. It analyses how each state's distinct profile shapes its approach to ecosystem development, industry growth, sustainability initiatives, and support programs for various stakeholders across the region. The chapter uses secondary sources of data such as government policy documents downloaded from the state's official start-up websites, databases such as the

[4] https://www.startupindia.gov.in/srf/, Website, Accessed in 13 Jan 2025

Niti Ayog, Economic Survey Statistical Appendix and the YNOS search engine to collect information required to establish the context of states.

Key Areas	Indicators	States					
		Kerala	Gujarat	Karnataka	Odisha	Maharash tra	Tamil Nadu
Economy	GDP of State (in RS. Lakh Crores) (Current)	11.46	22.03*	25.01	8.54	40.44	27.22
	Share in India's GDP (in percentage)	3.88%	8.17%*	8.47%	2.89%	13.69%	9.22%
Academia	Number of Institutes	1,502	2,492	4,508	1,341	4,780	2,895
	Enrolment Rates	41.30%	24%	36.20%	22.10%	35.30%	47%
Start-Up Ecosystem	Incubators and Accelerators	41	46	141	37	125	154
	Angels	50	212	1,993	10	2,650	413
	Venture Capitalist and Angel Networks	18	85	331	1	669	93
Impact	Leading Sector in State	Health Tech	Manufacturing	Software	Software	Software	Software
State Rankings	Business Reforms Action Plan	Aspirers	Top Achievers	Top Achievers	Achievers	Achievers	Top Achievers
	Start Up India Ranking	Best Performer	Best Performer	Best Performer	Top Performer	Top Performer	Best Performer

Source: YNOS Search Engine, Economics Survey Statistical Appendix 2023-2024, Niti Ayog, Startup India, Press Information Bureau

Table 2.3 Profile and context of the selected states

Table 2.3 presents a comprehensive profile of the selected states, encompassing their economic indicators, academic infrastructure and enrolment rates. The table details key start-up ecosystem enablers, including incubators, accelerators, venture capitalists, and angel investors operating within each state. Additionally, it identifies the leading industrial sectors unique to each state. The profile also incorporates state rankings from two significant government assessments: The Business Reforms Actions Plan and Startup India Ranking, both issued by the Department for Promotion of Industry and Internal Trade (DPIIT) under India's Ministry of Commerce and Industry.

These six states collectively contribute 46.32 percent of India's GDP, highlighting their pivotal role in the national economy. In terms of the overall start-up ecosystem, states like Tamil Nadu, Maharashtra and Karnataka have a significant number of key enablers – incubators and accelerators, angel investors and venture capitalists. Maharashtra, Karnataka and Tamil Nadu also have a significant number of Academic Institutions

indicating a favourable environment for development of skilled talent pool. Tamil Nadu and Kerala have the highest enrolment rates out of the selected states of study. Leading sector of the state's showcased Software as the leading sector for the majority of the states – Karnataka, Odisha, Maharashtra and Tamil Nadu. Kerala's start-up landscape leads in health-tech and Gujarat's leads in manufacturing. Business Reforms Action Plan awards states that provide a favourable regulatory framework for businesses, and Startup India Ranking indicates growth of the start-up ecosystem in comparison to other states. All states have performed positively in the assessments.

S.No	Kerala	Gujarat	Karnataka	Odisha	Maharashtra	Tamil Nadu
1	Health Tech	Manufacturing	Software	Software	Software	Software
2	Software	Software	Hardware and Technology	Real Estate	Sales and Marketing	Manufacturing
3	Sales and Marketing	Health Tech	Sales and Marketing	Food and Beverages	Manufacturing	Hardware and Technology
4	Hardware and Technology	Hardware and Technology	Health Tech	Sales and Marketing	Health Tech	Transportation and Logistics
5	Edu - Tech	Real Estate	Transportatio n and Logistics	Health Tech	Transportation and Logistics	Sales and Marketing

Source: YNOS Search Engine

Table 2.4: Top five start-up sectors of selected states

Most states have Software as their leading start-up sector – Karnataka, Odisha, Maharashtra and Tamil Nadu. (Refer Table 2.4) Kerala has Health-Tech and Gujarat has Manufacturing as their leading start-up sector, followed by Software as their second leading sector. Sales and Marketing is the second most recurring start-up sector amongst the top five for all states except Gujarat. Overall, there are noticeable similarities in the start-up sector landscape of the states, with recurrences of Software, Sales and Marketing, and Hardware and Technology sectors in most states – Kerala, Karnataka, and Tamil Nadu. There are also prominent differences such as Kerala with the Edu-Tech Sector and Odisha with Food and Beverages as one of its top five start-up sectors.

State	Policy Title	Drafted By	Year of Latest Policy	Pages	Year of First Policy
Kerala	Technology Innovation and Entrepreneurship Policy (Included as Sub Point 7 in Kerala State IT Policy)	Department of IT	2017	15	2014

State	Policy Title	Drafted By	Year of Latest Policy	Pages	Year of First Policy
Gujarat	Gujarat Industrial Policy - Scheme for Assistance for Start-up and Innovation Student Start-up and Innovation Policy for the State of Gujarat (SSIP 2.0)	Industries and Mines Department Education Department	2020 2022	10 28	2015 2017
Karnataka	Karnataka Start-up Policy	Department of Electronics and IT/BT and S&T	2022	27	2015
Odisha	Odisha Start-up Policy	Department of Micro, Small and Medium Enterprises	2016 (With Operational Amendment dated 31st March 2017 and 16th March 2018)	24	-
Maharashtra	Maharashtra State Innovative Start-up Policy	Maharashtra State Innovation Society (MSInS), Department of Skill Development and Entrepreneurship	2018	32	-
Tamil Nadu	Tamil Nadu Start-up and Innovation Policy	Department of Micro, Small and Medium Enterprises	2023	51	2018

Source: Government policy documents downloaded from state websites

Table 2.5: Overview of State Start-Up Policies

Kerala, Karnataka, and Gujarat implemented their start-up policies before the 2016 launch of Startup India (Refer Table 2.5). This early adoption reflects the longstanding entrepreneurial culture and economic significance of start-ups within these states, which have fostered robust start-up ecosystems.

Kerala initiated its focus on technology-based innovation in 2006 through the Technopark Technology Business Incubator (T-TIB), fostering youth entrepreneurship in IT/ITeS sectors. The state became India's first to implement a dedicated start-up policy in 2014 (released by the Department of Electronics and IT/BT and S&T), aiming to nurture young entrepreneurs and retain talent within the state.

Gujarat's entrepreneurial journey dates back to 1979 with the establishment of the Centre for Entrepreneurship Development (CED), which pioneered entrepreneurship training and later expanded to skill development in 2009. The state formalized its start-up support in 2015 with a dedicated Gujarat Industrial Policy - Scheme for Assistance for Start-up and Innovation released by the Industries and Mines Department to strengthen its existing entrepreneurial ecosystem. Post the launch of Startup India, the Student Start-up and Innovation Policy (SSIP 2.0) was released by the Education Department in 2022 to foster a robust ecosystem for student-led start-ups and innovations.

Karnataka had supported start-ups through its IT, ITeS, and Electronics System Design and Manufacturing (ESDM) policies before launching its dedicated start-up policy in 2015, which aimed to replicate Bengaluru's successful ecosystem model across the state. The policy was released by the Department of Electronics and IT/BT and S&T.

Odisha introduced its "Startup Odisha" Initiative in 2016 to enhance its start-up ecosystem, and launched its first detailed start-up policy under the Department of Micro, Small and Medium Enterprises. The policy aimed to develop the state's start-up ecosystem to emerge amongst the top 3 start-up hubs in India.

Maharashtra initiated its entrepreneurial journey in 1988, with the launch of Maharashtra Centre for Entrepreneurial Development (MCED) which focused on the development of entrepreneurial spirit in the state. It launched its start-up policy in 2018 through the Department of Skill Development and Entrepreneurship, aiming to promote the growth of innovation-driven entrepreneurial ecosystems.

Tamil Nadu establishment of the Tamil Nadu Entrepreneurship Development and Innovation Institute (EDII) in 2009, beginning its entrepreneurial journey. In 2018, it launched its first comprehensive start-up policy under the Department of Micro, Small and Medium Enterprises, with an aim to create 5,000 start-ups by 2023.

Tamil Nadu, Kerala, Karnataka and Gujarat have been actively formulating and implementing new start-up policies to adapt to their evolving economic landscapes. They have been setting goals beyond the initial objectives outlined in their pioneering start-up policies.

States	Vision Statement	Main Themes present in the Vision Statement	No. of main themes
Gujarat	Empowering the young population of the State to unlock their creative potential through Start-up and Innovation so as to enable them to contribute for sustainable development and inclusive growth towards the Realization of Aatmanirbhar Gujarat.	Skill Development and Training, Support Systems, Sustainability, Provision for Equitable Growth	4

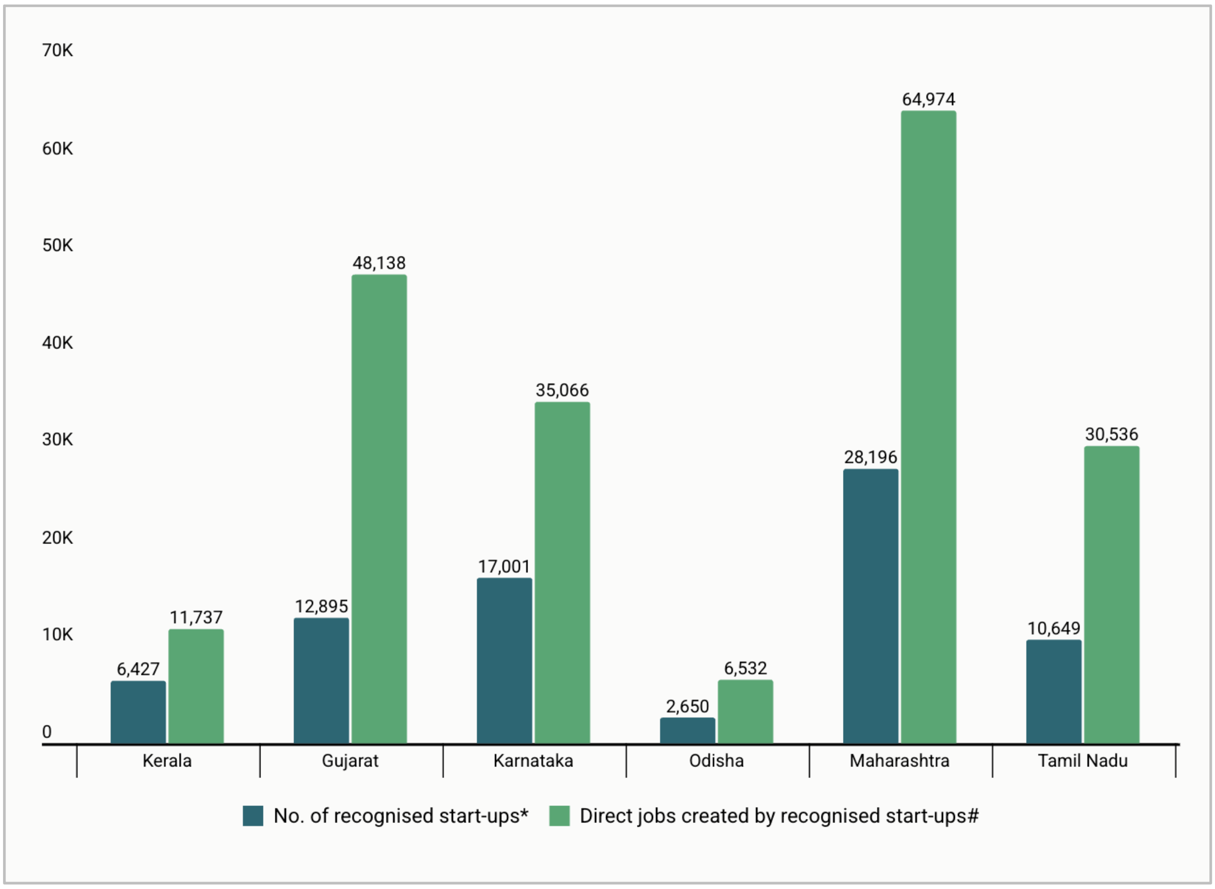
States	Vision Statement	Main Themes present in the Vision Statement	No. of main themes
Karnataka	To play a vital role in creating an enabling environment across the State for nurturing start-ups throughout their business lifecycle and make Karnataka a global innovation hub for start-ups.	Access to Market, Sustainability, Support Systems.	3
Odisha	To emerge amongst the top 3 "Startup Hubs" in India by 2020 through strategic partnerships, conducive ecosystem, investment and policy interventions. To Unleash the potential of women entrepreneurship in Odisha by encouraging at least 33 percent of the start-ups with founder/ co-founders as women.	Institutional Collaboration, Support Systems, Infrastructure, Funding and Finance, Provision for Equitable Growth	5
Maharashtra	To transform Maharashtra by catalyzing the growth of an innovation-driven entrepreneurial ecosystem to achieve wholesome and inclusive Socio-economic development	Support Systems, Infrastructure, Provision for Equitable Growth	3
Tamil Nadu	The vision is for Tamil Nadu to become one of the top 20 global start-up destinations by 2032, based on internationally recognized criteria, and to enable groundbreaking innovative and wealth creating ventures while also establishing a supportive start-up ecosystem that emphasizes distributed wealth creation, innovative job opportunities, triple bottom line accountability, investor trust, ethical and logical revenue models, and democratized equal growth opportunities for other nations to emulate.	Access to Market, Support Systems, Infrastructure, Funding and Finance, Regulatory Reforms, Provision for Equitable Growth	6

Source: Government policy documents downloaded from state websites

Table 2.6: Presenting the comprehensiveness of the state's start-up policy vision statements.

All the states except Kerala have presented a vision statement in their start-up policies, which helps them address their overall purpose for presentation of their start-up policies. (Refer Table 2.6) The vision statements are detailed in nature covering various themes, showcasing the overall support it aims to offer the start-ecosystem in its development. Three states have covered more than half main themes identified in the study in their vision statement – Tamil Nadu, Odisha and Gujarat. And the remaining states –

Karnataka and Maharashtra have covered three main themes in their vision statement. All states have covered Support Systems, aiming to extend their support in creation of a favourable start-up environment for development.



Source: *YNOS Venture Engine as on 18 Feb 2025, #Press Information Bureau as on 04 Feb 2024

Figure 2.13: Recognised Start-ups and Job Creation

Start-ups have created a significant number of jobs in the economy in all states. (Refer Figure 2.13) They have achieved one of the intended outcomes of start-up policies, creating employment opportunities. There is a positive correlation between the number of recognized start-ups and direct jobs created in the states. Start-ups in Gujarat and Tamil Nadu have created jobs three times the number of start-ups in the state. While start-ups in Odisha have created jobs two times their number of start-ups. Start-ups in Kerala and Karnataka have come close to creating two times the number of start-ups in their states.

2.2.2 Thematic analysis within policy

HIGHLIGHTS
▪ Support Systems (including incubators, mentorship, and R&D assistance) and Funding and Finance are the two most consistently prioritised areas across state start-up policies. ▪ Skill development and training, market access, and sustainability have received notably less attention in terms of initiatives and schemes.

HIGHLIGHTS

- Infrastructure is particularly emphasised in Tamil Nadu, Kerala, and Maharashtra, including research and incubation centres and technology parks to reduce early operational costs for start-ups.
- Equitable growth, addressing the needs of marginalised communities, has received significant attention in Karnataka, Tamil Nadu, and Odisha.
- Institutional collaboration to foster partnerships between start-ups, industry, and academia is recognized as a key focus area by Maharashtra, Gujarat, and Karnataka.

This chapter brings out the emerging themes and trends within each states start-up policies, by identifying policy focus areas of the states within themes and sub-themes. Figure 2.14 shows the row-wise distribution of the main-themes within states start-up policies, with the size of the bubble representing the total number of schemes and initiatives offered by the state calculated using the weighted average method. The size of the bubbles signifies the intensity of focus on the particular theme within the policy.

Source: CREST, IITM

Figure 2.14: Distribution of main themes within each state start-up policy using the weighted average method

The six state start-up policies offer varying levels of support across key themes; each tailored to the specific needs of their state's start-up environment. Most states have covered all nine themes identified in this analysis within their start-up policy, except Gujarat and Maharashtra. The focus on coverage of all themes within their policy showcases their priority in creating a supportive ecosystem for start-ups to develop in all significant areas. Gujarat and Maharashtra have not created initiatives that cater to Sustainability within their start-up policies. The policy focus areas of the six policies were further identified by taking into consideration the top three highest weighted themes. Maharashtra and Odisha have four themes in the top three categories due to equal weightage offered to themes within policy.

The primary recurring focus area across all the policies has been Support Systems, and Funding and Finance. The policies have given importance to creating a supportive ecosystem with mentors and networking opportunities to provide start-ups with expert knowledge and peer support. Support Systems also cover initiatives and schemes to support research and development efforts of the start-ups, with a focus on intellectual property. Funding and Finance covers all the critical aid requirements of the start-ups through their life cycle starting from capital funding required to establish a start-up. It also covers subsidies and incentives that help in reduction of overall burden of repayment borne by the start-ups. Together the initiatives under Support Systems and Funding and Finance provide start-ups with essential resources and support to develop within the ecosystem. Infrastructure follows as the third most recurring focus area across policies of Kerala, Maharashtra and Tamil Nadu. Infrastructure would support development of research and incubation centres, technological parks, and digital learning platforms and databases. It plays an important role in the development of a supportive ecosystem for start-ups by providing them with facilities and resources to reduce operational costs during their early stages.

Maharashtra also has Institutional Collaboration, on top of the earlier mentioned themes, as its focus area. It highlights measures taken to increase start-up-industry-academia collaborations driving up decision making and innovation through expert knowledge. Along with Support Systems, and Funding and Finance, Odisha and Gujarat have given importance to Regulatory Reforms. This would help in improvement of economic efficiency by reduction of regulatory burden aimed towards start-ups. Through adoption of effective governance mechanisms, it also increases efficiency of resource allocation by the states. Karnataka and Odisha have Provisions for Equitable Growth as their third focus areas which supports development of social inclusivity within the start-up ecosystem. The differences in support for themes beyond the primary requirements of Support Systems, Funding and Finance, and Infrastructure help identify the focus area of the state's start-up ecosystem in terms of focus on social inclusivity and allied support offered such as industry collaborations.

Main- Theme	Sub-Theme	State with maximum policy distribution for sub-theme
Access to Market	Domestic: Market Procurement	Kerala
	Domestic: Market Opportunities	Tamil Nadu
	International: Exposure	Maharashtra, Odisha, Karnataka
Funding and Finance	Capital Funding	Karnataka
	Revenue Funding and Grants	Odisha
	Subsidies and Incentives	Tamil Nadu
	Platforms and Networks	Gujarat
Regulatory Reforms	Clearance and Approval	Karnataka
	Compliance	Tamil Nadu
	Governance	Gujarat
Infrastructure	Physical	Kerala

Main- Theme	Sub-Theme	State with maximum policy distribution for sub-theme
	Digital	Gujarat
	Sectoral	Karnataka, Gujarat
Institutional Collaboration	Academia	Kerala
	Corporate	Odisha
	Government	Karnataka
Skill Development and Training	Knowledge Banks	Karnataka
	Programmes	Kerala, Odisha, Maharashtra
Support Systems	Incubator	Odisha
	Mentoring and Networking	Odisha
	Research and Development	Kerala
	Intellectual Property	Gujarat
Provisions for Equitable Growth	Marginalised Community	Odisha
	Persons with Disability	Odisha
	Gender	Gujarat
	Minority	Tamil Nadu
	Income	Odisha
	Senior Citizens	Karnataka
	Geography	Maharashtra, Kerala
Sustainability	Start-up Sustainability	Kerala
	Environmental Sustainability	Karnataka

Source: CREST, IITM

Table 2.7: Distribution of sub-theme within state policies

The findings (Table 2.7) are based on identification of states that have allocated the highest weighted policy distribution for each sub- within their start up policies analysed by main themes. (Refer Annexure 3) One or more sub-themes have been identified to have multiple states that have allocated the same weighted policy distribution. Such as International Exposure, which signifies that Maharashtra, Odisha and Karnataka have allocated the same weighted policy distribution for this sub-theme within the Access to Market theme.

A trend identified within this analysis was the skewness of some state's policy within the main themes towards the sub-theme identified to have the maximum distribution. Under Access to market, Kerala policy has given most priority towards Domestic Market Opportunities with two-third of the theme allocated towards its initiatives and schemes. Similarly, under Funding and Finance, Karnataka's policy is skewed towards provision for capital funding with close to 70 percent of the theme allocated to it. Governance under the main theme of Regulatory Reforms has close to 95 percent of the policies dedicated to it in Gujarat's policy.

Another identified trend was primary support offered to only one sub-theme under a main theme. Under Skill Development and Training – Kerala, Odisha, and Maharashtra have only allocated 100 percent of the policies towards programmes. Similarly, under

Sustainability, Kerala has solely focused on Start-up Sustainability and Karnataka has solely focused on Environmental Sustainability. Under the main theme of Provisions for Equitable growth, Kerala and Maharashtra have not allocated provision for sub-themes apart from Geography dealing with regional development, while all other states have covered at least two to four categories under the theme. Hence, the skewness towards the sub-themes can be associated with the higher presence of the sub-themes in these policies when compared to other states.

In addition to the findings on Table 2.7, the distribution of the sub-themes within main themes were analysed revealing unique patterns of support offered by each state. (Refer Annexure 3). Under Access to Market, the approach towards realisation of market potential was split between domestic and international. Some states offered equal support to both markets, such as Karnataka, Odisha and Maharashtra which helped identify their intention to support market expansion at both domestic and international levels. While others focused majorly on domestic market support such as policies of Kerala, Gujarat and Tamil Nadu, with focused efforts in increasing public procurement and market opportunities. The distribution of sub-themes for Funding and Finance has been diverse and tailored to the entrepreneurial landscape of each state. Karnataka and Kerala focusing primarily on Capital Funding with provisions for capital investment through the stages of the start-up lifecycle. Tamil Nadu on Subsidies and Incentives with focus on reimbursements and subsidies. Odisha, Gujarat gave more policies for Revenue Funding and Grants with focus on allowances. Maharashtra is the only state that has offered close to equal weightage to all sub-themes under this category.

Under Infrastructure, the focus of the states was primarily divided between Physical and Sectoral Infrastructure, with only little focus on Digital by Kerala and Maharashtra. Kerala, Odisha and Maharashtra dedicated more than or equal to half of their policy towards Physical Infrastructure. Gujarat, Karnataka, Odisha, Maharashtra and Tamil Nadu dedicated more than or equal to half of their policy towards Sectoral Development. They also gave up to one-third of the total policies towards Digital Infrastructure. For Incubator, and Mentoring and Development under Support Systems, all the states have given similar weightage in policies to both subthemes. Odisha, and Maharashtra have given up to 90 percent of the theme towards these categories, and Tamil Nadu has given close to 70 percent. This is the only category where there has been a pattern of similarity between states across all sub-themes, showing the prioritization offered to incubation and mentoring efforts by all states towards start-up ecosystem development.

The State's varied distribution of support for sub-themes can be reasoned on the grounds of differentiated support required to cater for specific ecosystems of the state. It can also be attributed to the focus area of their development plans. An example for this would be the difference between regional-focused and sectoral-focused policies. Another difference could be Infrastructure-focused or Allied-support-focus such as mentoring, networking and incubation support. Tamil Nadu’s start-up policy shows close to equal distribution of sub-themes within main themes of Access to Market, Regulatory Reforms,

and Infrastructure. While Maharashtra presents a similar distribution for Funding and Finance. No other state has come close to providing equal support for sub-themes within any main theme. While the policy implications for the varied distribution have been identified as dedicated support by states. Tamil Nadu could benefit from reducing the skewness of policies offered for the sub-themes within the main themes, which could lead to an equally supporting environment for all categories.

2.2.3 Cross-policy thematic analysis

HIGHLIGHTS
▪ Infrastructure (including Physical, Digital and Sectoral) and Provisions for Equitable Growth has received prominent support in the Tamil Nadu start-up policy, making up to 50 percent of all policies and initiatives offered by the states. ▪ Funding and Finance, Skill Development and Training, and Support Systems have received maximum focus in the start-up policy of Tamil Nadu followed by Karnataka. ▪ Access to Market has been led by Tamil Nadu and Gujarat due to their emphasis on domestic and international market development. ▪ Institutional Collaboration has been given close to equal amount of focus in the policies of Tamil Nadu and Gujarat followed by Karnataka and Maharashtra. ▪ Sustainability has been given the maximum focus in the policy of Karnataka with their solo focus on Environmental Sustainability, followed by Tamil Nadu being the only state to give provisions for both the sub-themes with their inclusion of start-up sustainability. ▪ Regulatory Reforms has received significant focus in the start-up policy of Gujarat covering their thorough governance model, followed by Odisha and Tamil Nadu.

The focus of this analysis was to bring out a comparative understanding of the state start-up policies by themes and sub-themes. Further, the initiatives of the state leading in provision for support in sub-themes were identified. Figure 2.15 reveals the comprehensive cross-policy analysis of main themes identified for this study across states. Calculated using the weighted average method, the size of the bubbles enables column-wise comparison, highlighting the diverse approaches of policies that are adapted in different state start-up policies. Bigger bubbles signifying a higher number of initiatives for the sub-theme by the state.

Source: CREST, IITM

Figure 2.15: Analysis of main themes across state start-up policies using weighted average methods

Tamil Nadu leads in majority of the themes with provisions offered through schemes and initiatives within its start-up policy. (Figure 2.15) Tamil Nadu leads in providing initiatives for the themes Access to Market, Funding and Finance, Infrastructure, Institutional Collaboration, Skill Development and Training, Support Systems, and Provisions for Equitable Growth. It implies that the start-up ecosystem is robust and well-structured in catering to the needs of start-ups in every aspect of this growth and development with a focus on social inclusivity. This ensures that the start-ups have more opportunities to create a lasting impact on the economy by driving innovation and job creation. This also leads the state to move closer to its 1 trillion-dollar economy by 2030[5] by promoting and supporting the innovations within the state.

Amongst the leading themes, Tamil Nadu leads in Provision for Equitable Growth with an overwhelming majority. The in-depth inclusion of its diverse community focuses on providing people with the opportunity brings us back to the governing policy of the current state government, the Dravidian Model. It is a political philosophy that gives importance to providing inclusive growth for people in all walks of life through targeted social interventions[6]. They have offered funding through schemes under the Social Justice Venture Lab, the TN SC/ST Startup Fund, the Annual Ambedkar Business Champions Scheme (AABCS), and Trans People-led and Differently Abled Start-ups. By June 2024,

[5] "GIM2024: TN releases vision document to achieve $1 trillion economy by 2030; a Semiconductor and Advanced Electronics policy", Business Line, 07 Jan 2025 https://www.thehindubusinessline.com/economy/gim2024-tn-releases-vision-document-to-achieve-1-trillion-economy-by-2030-a-semiconductor-and-advanced-electronics-policy-released/article67715530.ece, Accessed 03. Feb 2025

[6] "Learning from the Dravidian Model for Inclusive Growth", Times of India, Aug 30 2022, https://timesofindia.indiatimes.com/city/chennai/learning-from-the-dravidian-model-for-inclusive-growth/articleshow/93868494.cms, Accessed 03. Feb 2025

the state had invested Rs.55.20 crore out of its Rs.80 crores fund allocated towards the support of 38 start-ups led by the SC/ST youth as a part of the SC/ST Tribe Start-up fund.[7]

"To encourage and promote social inclusion, the State Government has been a pioneer in reaching out to entrepreneurs from the Scheduled Caste and Scheduled Tribe Communities (SC/ST) which are under-represented in the Startup ecosystem." - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises.

Tamil Nadu also has a significant advantage in Infrastructure. By increasing the quality, reliability, and accessibility of infrastructure, both physical and digital, the state is engaging in creating a conducive environment for the growth of start-ups. With policy interventions such as Sandbox Incubators in Tier II/III Cities, Institution Startup Circle (ISC), Prototyping Facilities, etc. They have created an outlet for providing support to start-ups to attract investment into the state and increase efficiency of business activities by providing a cost-effective environment, especially early-stage start-ups that require lower operational cost to facilitate growth.

"*The objective of the URP is to promote industry-academia collaboration, facilitate research and development, commercialization of R&D, entrepreneurship development, catalyze innovation and intellectual property (IP) creation and development of the region into an innovation cluster."* – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Gujarat leads in Regulatory Reforms with its thorough Governance model. It has focused on creating a tier-system for governance within its start-up ecosystem consisting of four governing bodies – State Level Apex Committee (SLAC) / Policy Implementation Committee (PIC) / Gujarat Knowledge Society (GKS) / Project Management Units (PMU's). The detailed focus on monitoring and evaluation at various levels of the system ensures that the provisions established for the start-ups are well received by deserving candidates.

"*If the beneficiary is not found unable to deliver the desired outcomes, further release of grant shall be reconsidered."* - Student Start Up and Innovation Policy for the State of Gujarat (SSIP 2.0), Education Department.

Karnataka leads in Sustainability with its dedicated support for promoting Circular Economy under the schemes of Accelerating Transition to Circular Economy, the state has provided a dedicated resource centre, funding support, and acceleration programmes for the development of start-ups that promote environmental sustainability. The state has engaged in growth of start-ups that focus on development of products and services that are aligned to the Sustainable Development Goals (SDGs) of the state. These include

[7] Roy, Shrija." Tamil Nadu Government Allocates Rs 55.20 Crore to 38 SC/ST Youth-Led Startups". Business Outreach, 11 Jun 2024, https://www.businessoutreach.in/tamil-nadu-government-allocates/, Accessed 03 Feb 2025

start-ups in sectors of renewable energy, sustainability, climate change and circular economy.

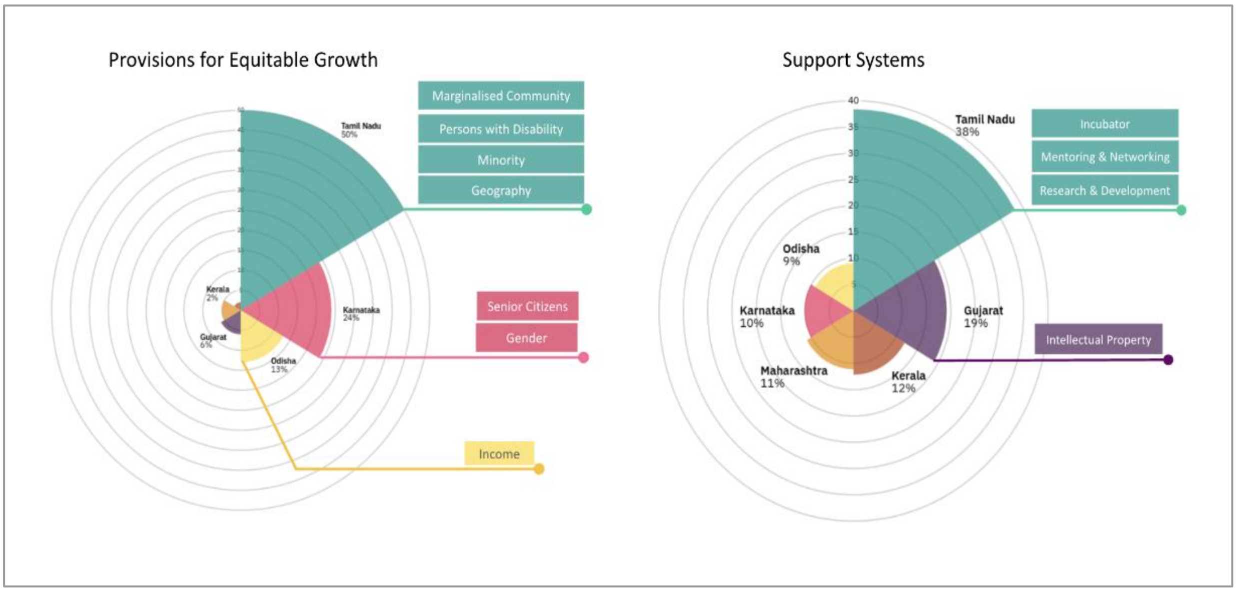
"*This network will assist the start-ups in their growth journey after the seed funding program by providing strategic support, funding, mentorship, and networking opportunities. Thrust will be given to start-ups working in areas related to Sustainable Development Goals (SDGs) including Circular Economy, Renewable Energy / Sustainability / Climate Change*" – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

In Figure 2.16 to 2.18, the findings have been identified from the thorough analysis in Annexure 3. The states leading in provision and schemes for development of the start-up ecosystem across the six policies have been identified by main themes and sub- themes. Amongst the six state policies studied, Tamil Nadu leads in provision for initiatives and schemes for 19 subthemes, under 8 main themes. (Refer Figure 2.16 to 2.19) The lead in the sub-themes identified signifies the comprehensive and thorough nature of the Tamil Nadu start-up policy in addressing the various needs of the start-up ecosystem and its key players. Following which Karnataka has the leading sub-themes identified at 6 covering 5 main themes. And Gujarat is leading in 4 sub-themes covering 3 main themes. The other states are leading in 2 or less sub-themes overall. The in-depth analysis of the sub-themes with initiatives and policies for the leading states can be referred to in the Annexure 3. The key takeaways are identified to bring out a significant difference in approach or coverage of sub-themes between Tamil Nadu start-up policy and the other state policies.

Source: CREST, IITM

Figure 2.16: Main themes with Tamil Nadu policy leading in all sub-themes

Tamil Nadu leads in the main themes of Access to Market, Infrastructure and Skill Development and Training with a complete added advantage of a lead in all the sub-themes of these categories. (Refer Figure 2.16). With its overall competitive edge in infrastructure, the state has set ground to support any start-ups that require resources to transform their idea into products, regardless of field and sector. A well-established infrastructure also attracts investments from potential investors outside of the government sources, which leads to it creating an enabling environment for the growth of start-ups.



Source: CREST, IITM

Figure 2.17: Main themes with Tamil Nadu policy leading in majority sub-themes

Tamil Nadu has an overall advantage over the main themes of Provision for Equitable Growth and Support Systems. (Refer Figure 2.17).

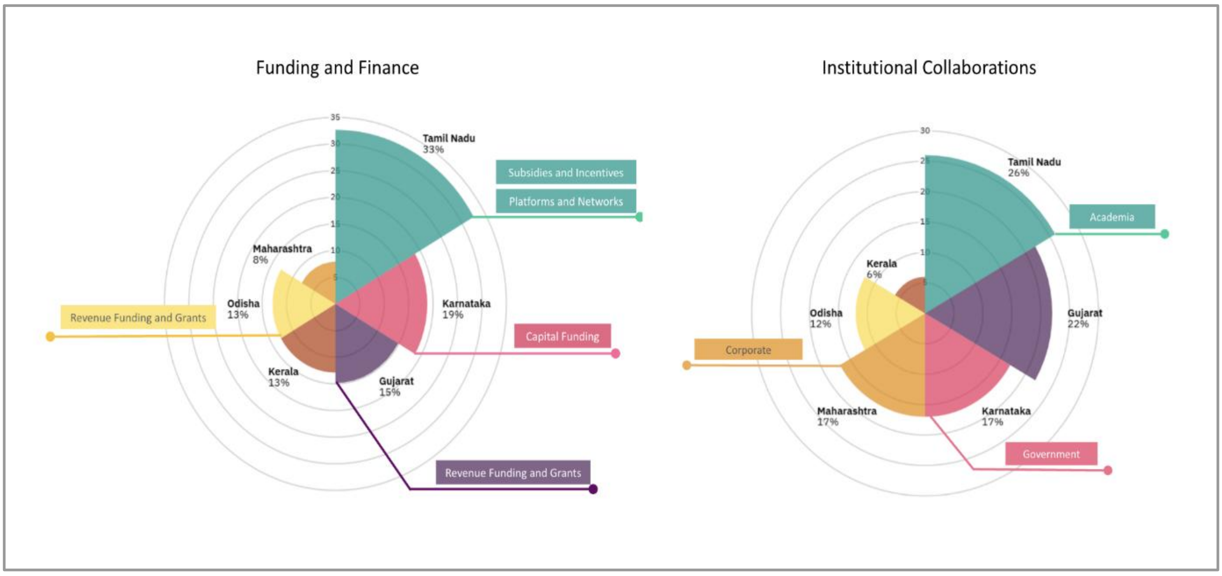
Emerging Themes and Trends – Tamil Nadu Start-up Ecosystem Growth: Tamil Nadu has a prominent lead in this main theme overall with majority of the schemes and initiatives from this category being covered by the states start-up policy. While some of the sub-themes are led by other states, such as Senior Citizens by Karnataka. Karnataka is the sole state that has made provisions for Senior Citizens in its policy. With the inclusion of Senior Citizens, it addresses the need for innovative technology that can support in easing the burdens of their everyday life. Centre of Excellence for Assistive Technology offers funding support for development of innovative ideas.

"The State Government will facilitate setting up a Centre of Excellence for Assistive Technology (AT) with a grant/funding support of INR 15 Crore to develop innovative products and solutions for Differently abled community and senior citizens, in collaboration with Department of Empowerment of Differently Abled and Senior Citizens, academia, and industry partners" - Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Support Systems: Tamil Nadu leads in the provision for schemes and initiatives in support of development of Incubator, Networking and Mentorship, and Research and Development. opportunities Gujarat leads in the sub-theme of Intellectual Property. It has provided support in forms of Funding Cost of Raw Materials and supporting Testing and Trials of products. They have promoted innovation by developing Tinkering Labs for product development at the educational level. They have also offered assistance for students that require support to register their Intellectual Property (IP). The state has

separate funding support for IPR registration of patents, copyrights, trademarks, industry design, semiconductor integrated circuits etc.

"Utilization of fund allocated to develop pre-incubation facilities and assist students in IP filing, developing PoCs, prototypes and other innovation related activities."- Student Start Up and Innovation Policy for the State of Gujarat (SSIP 2.0), Education Department.



Source: CREST, IITM

Figure 2.18: Main themes led by Tamil Nadu policy with a lead by other state policies in sub-themes

Tamil Nadu has an overall lead in the main themes of Funding and Finance, and Institutional Collaborations, with a lead in few of the sub-themes within each main theme. (Refer Figure 2.18).

Funding and Finance: Tamil Nadu leads in provision of Subsidies and Incentives, with a focus on mitigating costs and reducing their burden of repayment for start-ups. It has offered targeted subsidies such as Annal Ambedkar Business Champion Scheme as capital subsidy provided for SC/ST Communities, School Innovation Development Program as incentives for innovative projects for school students, New Entrepreneur cum Enterprise Development Scheme (NEEDS) as capital subsidy for first- generation entrepreneurs are some of the many schemes offered by the state to develop the different communities of entrepreneurs.

"*To promote business ventures from founders by SC/ST communities. Under this scheme, 35 percent capital subsidy and 6 percent interest subventions are given to the entrepreneurs."* – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Some of Karnataka's schemes under Capital Funding are for Incubator support via Support for Technology Business Incubators (TBI's). Idea2POC Grant-in Aid Scheme as

aid for thrust sectors such as deep tech, assistive technology and sustainable development. And, Beyond Bengaluru Cluster Seed Fund which is to support the establishment of start-ups beyond the Bengaluru urban district etc.

Gujarat's policies under revenue funding and grants include Sustenance Allowance, Assistance to Enrol and Participate in Acceleration Programs and Skill Development for Start-ups, Support for Proof of Concept (PoC), Prototype and Innovation at HEI level, etc. These schemes help entrepreneurs get access to small scale funds for the development of their product. The assistance for development of soft skills also ensures that support is given to prepare for the business requirements beyond that of the creation of the innovative ideas, which helps in improving the growth and development of the start-ups.

"Approved/sanctioned start-up shall be provided assistance for skill development trainings specific to soft skills, managerial skills, marketing skills, financing skills for the start-up project. Financial assistance up to Rs. 1 lakh per approved start-up." Gujarat Industrial Policy - Scheme for Assistance for Start Up and Innovation (2020), Industries and Mining Department

Odisha has focused on providing grants at different stages of the start-up development under Assistance at the Idea/ Prototyping stage and Assistance once the Idea / Concept gets commercialized, such as a monthly allowance for founders, assistance for marketing and publicity. The grant offered as monthly allowance is made specifically for supporting minorities. It helps empower the communities that may not have the same access to opportunities as others; this level of social inclusion also helps bring in societal development within the start-up ecosystem. Odisha is the only state that has provisions for the Income sub-theme, supporting entrepreneurs who fall under the socially and economically backward class (SEBC) category.

"*Monthly allowance of Rs.20,000/- (The monthly allowance shall be Rs.22,000/-, if the start-up Founder (s)/Co -Founder (s) are Women or transgender or from Social Categories such as SC/ST/SEBC/PH.*" - Odisha Startup Policy (2016), Micro, Small and Medium Enterprises Department

Institutional Collaborations: Tamil Nadu is leading in Academia collaborations. It helps bridge the gap between theoretical understanding and practical application of knowledge. Some initiatives such as School Innovation Development Program, Creativity Hubs and Student Innovation Awards that support students develop innovative ideas and gain supportive grants for prototyping. Learning and Development Portal and NextLeap Initiative that promote learning about entrepreneurship through courses offered by them. Innovation Spirits (Hackathons/Ideathons) that lead events to bring forward best ideas across the state at a competitive level. The focus on development of skills and fostering an environment for entrepreneurship will lead to creation of a talent pool that can be utilized for development of innovation in the state.

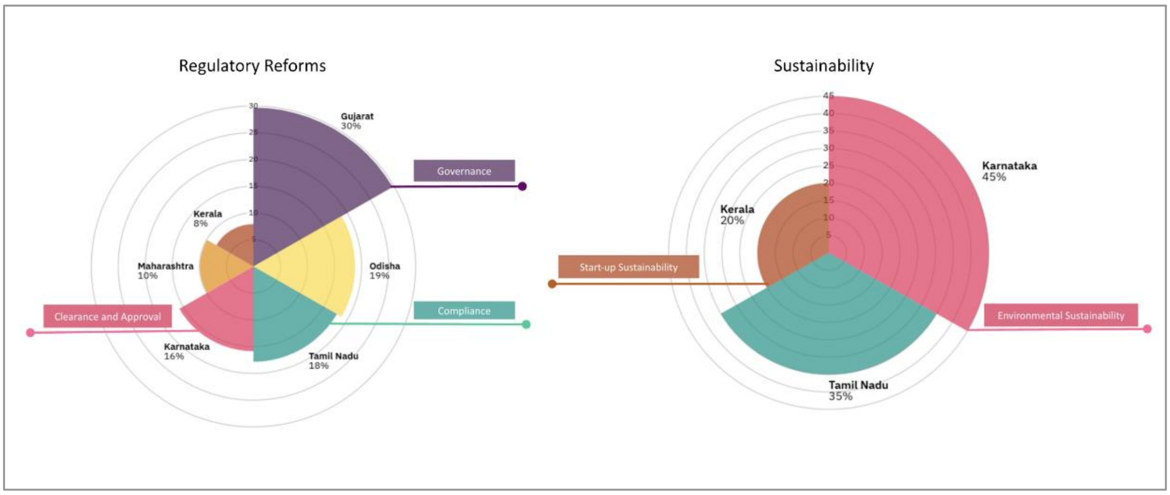
"*These events will be conducted in HEIs as stand-alone events or in collaboration with corporates, industries, and governmental departments. The collaboration will ensure that the events are well-publicised, and that the best minds from across the State are invited to participate."* - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Karnataka is leading in government collaboration with many cross department and allied government initiatives mentioned in its start-up policy. Grand Challenged Karnataka (GCK) for funding support of awarding start-up and CSR Investments for projects related to Sustainable Development Goals (SDGs). Idea2POC Grant-In-Aid Scheme that provided mentoring and incubation support at government supported incubation centres, while Facilitate Investor Connect to get start-ups connected with government departments for funding.

"*Grand Challenges Karnataka (GCK) – Innovative solutions for societal impact: Each year 3 challenges will be announced in collaboration and funding support of different Government Departments/Corporates. The winners will be awarded an initial grant of INR 10 Lakhs to test and demonstrate the solution and a follow-on funding of INR 50 Lakhs for deployment of solution."* – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Maharashtra with its lead in corporate collaboration, has focused on creation of an incubation system at the industry level. This will help in fostering growth of start-ups within the field of expertise of the industry players, bringing in advice from experts in terms of market validation, refinement of product ideas and help in expansion of ideas for commercialisation.

"*The State will provide support to leading companies and industry associations to establish incubators specializing in their domain.*" - Maharashtra State Innovative Startup Policy (2018), Department of Skill Development and Entrepreneurship.



Source: CREST, IITM

Figure 2.19: Main themes led by other state policies

The main themes of Regulatory Reforms are led by Gujarat and Sustainability is led by Karnataka. (Refer Figure 2.19). These are the only two main themes wherein the Tamil Nadu start-up policy does not lead in the provisions of overall initiatives and schemes.

Regulatory Reforms: Tamil Nadu leads in the sub - theme of Compliance with its provisions to create a favourable business environment with handholding support. Under compliance the state has brought forward schemes like Financial and Legal Literacy platform, Startup -SME IPO Support, Startup Smartcard, Startup Helpline, Legal Compliance Support, etc. These systems were set in place to assist start -ups with ease of managing their regulatory requirements.

"Startup Helpline: A dedicated Helpline number will be made operational for Start - steps, Startups, Mentors, Investors and any other stakeholders to get their queries clarified." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises Gujarat's focus on Governance. Karnataka has focused on providing reimbursement as a form of regulatory reform under Clearance and Approval to help start-ups mitigate their costs incurred during the various stages of their start-up lifecycle. Reimbursements for application fee incurred by start-ups registering in regulatory sandboxes and marketing cost for international trade show participation. Also, reimbursement for cost incurred in quality assurance for patents filling cost incurred by start-ups incubated in Government of Karnataka supported incubators. There is also a regional supportive reimbursement for State GST paid by incubators outside Bengaluru Urban District.

"Bengaluru Startups, incubated in GoK supported incubators and CIFs with a maximum annual turnover of INR 1 Crore shall be eligible for 100 percent reimbursement of annual State GST (SGST), within the first three years of being incubated." - Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Sustainability: Karnataka leads in the main theme of Sustainability. It has a scheme that is very unique to its state start-up policy, which is Accelerating Transition to Circular Economy. Within the scheme, they have allocated funds separately for the development of a resource centre, acceleration programs, and funding support for start-ups that are developing on ideas related to Sustainable Development Goals (SGDs). They have also created an Acceleration Network that helps in providing policy interventions beyond funding such as mentoring and networking opportunities, this helps the start-ups gain expert advice and peer support in the domain of environmental sustainability.

"*Government will setup a dedicated Resource Centre to encourage and support Circular Economy Innovation start-ups with a funding support of upto INR 50 lakhs during the policy period. The centre shall promote start-ups by sharing insights, creating networking opportunities and learning from circular economy experts and practitioners""* – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Kerala, with its lead in Start-up Sustainability, is the only state of our selected-states that focuses on Accommodating Failures in its policy. Under which, winding up facilitation looks at providing guidance and support to start-ups that may require assistance in closing down the enterprise and Distress Funds look at opportunities for start-ups to write off or reimburse their debts.

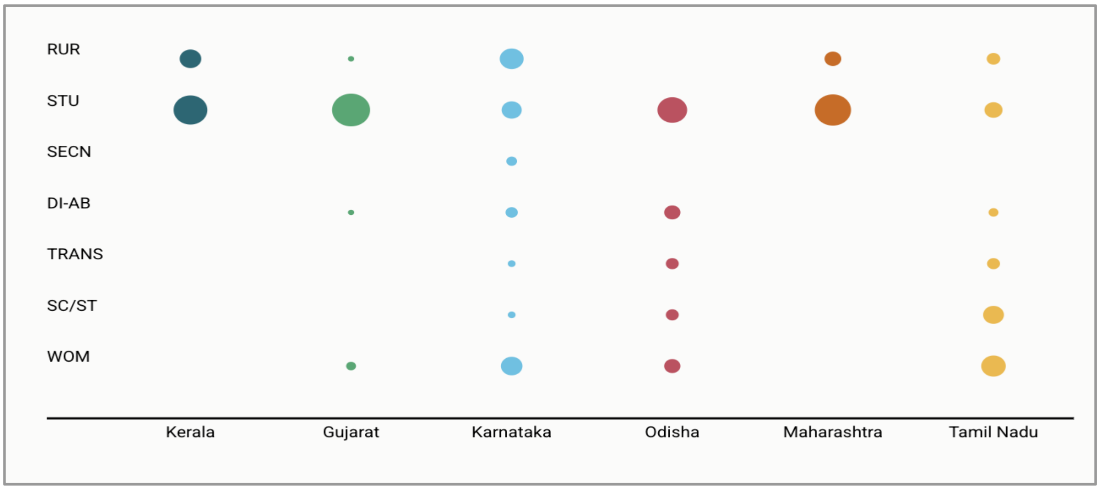
"If the start-up had a compelling reason to borrow and attempt the idea and it is seen that they had genuinely attempted it then the government shall write off/ reimburse debts of such start-ups through a fund created under Distressed Startups Fund." – Kerala Technology Startup Policy (Included as Sub Point 7 in Kerala State IT Policy) (2017), Department of Information Technology

2.2.4 Target beneficiaries and scope of study

HIGHLIGHTS

- Tamil Nadu policy could benefit from increasing the beneficiaries supported throughout the start-up policy. By adopting ideas from other states such as Karnataka that has supported Senior Citizens within their policy as a beneficiary.
- The support for the category of Students is given priority across the state policies. Tamil Nadu could benefit from adding more provisions to support young entrepreneurs in their journey.

In this analysis, the beneficiaries of the start-up policies were identified and compared to find the distribution of their mentions. This helps highlight the distinctive efforts taken by the state to support social inclusivity within its policies. Figure 2.20 illustrates the distribution of beneficiaries within the state policies, with the size of the bubble representing the total number of mentions addressed to the beneficiary, and calculated using the weighted average method.



Source: CREST, IITM

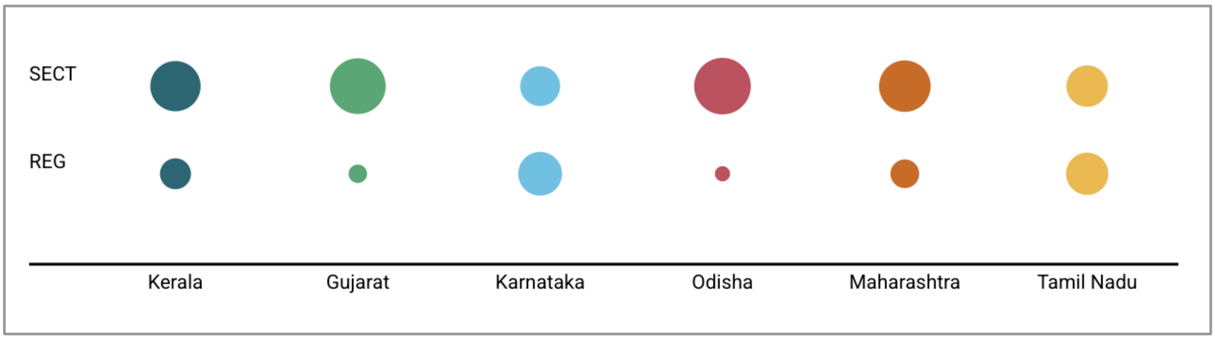
Figure 2.20: Distribution of beneficiaries within state start-up policy using the weighted average method

Karnataka is the only state that has addressed all target beneficiaries identified across state policies. (Refer Figure 2.20) Tamil Nadu, and Odisha follow as the only states to have addressed most beneficiaries identified. Gujarat's policy has mentioned Students (STU) for more than 90 percent of all beneficiaries. Maharashtra and Kerala have only focused on addressing students and rural beneficiaries in their policies. This distribution graph of beneficiaries within each policy, addresses the issues related to lack of social inclusivity in policy making.

Students (STU) are the most represented category across the policies, giving importance to the rise in entrepreneurial training at academic level with major collaboration with higher education institutions across the states. Gujarat stands out as the only state to majorly address to students in its policy, which can be attributed to its student-led specific start-up policy i.e., Student Start-up and Innovation Policy. Followed by Women (WOM), as the policies have aligned their vision with the need for women empowerment through the start-up sectors of the states, such as Tamil Nadu, Karnataka and Odisha. Rural (RUR) is the third most prominent mentioned category across states of Maharashtra, Kerala, Karnataka and Tamil Nadu. This reflects on the state's intentions to support the growth of the start-up ecosystem beyond the Tier I cities and distribute the benefits of the policy towards the development of rural areas.

Tamil Nadu has provisions' a large distribution of its policy in mention of Scheduled Caste and Scheduled Tribe, which is in line with the state's policy focused on equitable growth opportunities for the minorities. In comparison to the mentions and provisions mentioned by other states, Tamil leads in both domains for this category. Following this, Odisha has mentioned Differently-Abled the most across its policy, with provisions such as monthly allowance for this category of beneficiaries.

Figure 2.21 illustrates the distribution of scope between Region and Sectors. With the bubble sizes representing the total number of mentions for associated words, further calculated using the weighted average method.

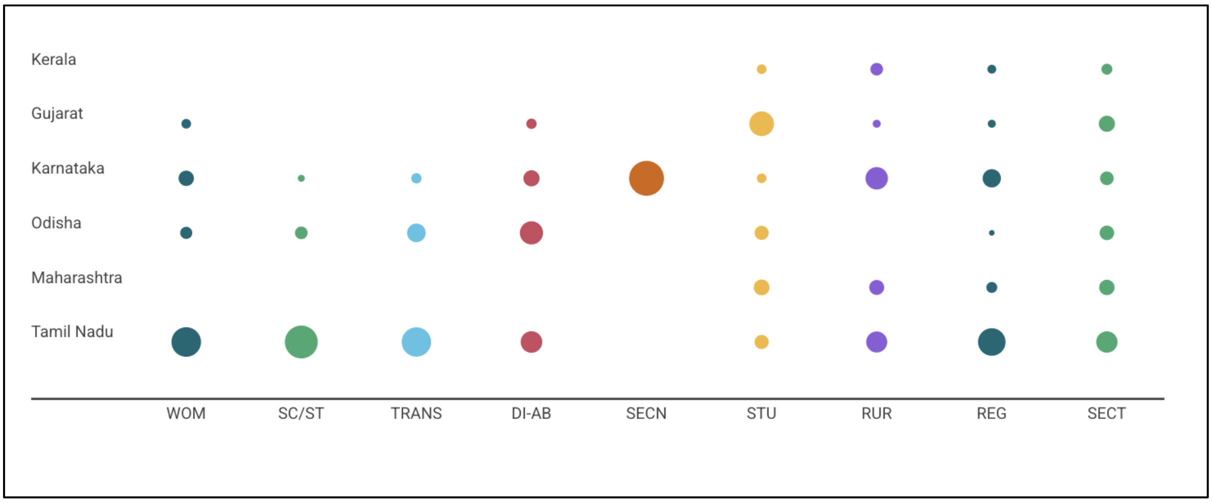


Source: CREST, IITM

Figure 2.21: Distribution of scope within state start-up policy using the weighted average method

Tamil Nadu and Karnataka are the only states that have addressed both Region and Sector in their policies equally. (Refer Figure 2.21) This represents an equal weightage given to the focus on Regional and Sectoral Development. Regional inclusivity ensures that the benefits of the start-up ecosystem are not limited to the developed regions of the state. It helps increase the total participation of smaller cities towards growth of the start-ups in states. Other states have majorly addressed Sectors within their policy. Sectoral development would help ensure that the innovations are disruptive and eco-systems continue to develop beyond current capacity. The difference in distribution between both the categories helps address the policy direction between regional-focused and sector-focused policies.

The heat map in Figure 2.22 reveals a comprehensive cross-policy analysis of the target beneficiaries and scope of study identified across states. Calculated using the weighted average method, the size of the bubbles enables column-wise comparison. It helps identify the mentioned categories in-depth, which are studied to bring out trends across states in terms of social and regional inclusivity of policy.



Source: CREST, IITM

Figure 2.22: Analysis of target beneficiaries and scope of study using the weighted average method

Tamil Nadu has the most mentions of the words associated with Woman (WOM), Scheduled Caste/ Scheduled Tribe (SC/ST) and Transgender (TRANS). Karnataka is the only state that addresses the category of Senior Citizens (SECZ) as a beneficiary within its policy. Students (STU) category is led majorly by Gujarat. The support for the beneficiaries Differently Abled (DI-AB) and Rural (RUR) are led by Odisha and Karnataka respectively with a marginal difference, followed by Tamil Nadu. Maharashtra and Kerala are the only states that have not addressed the beneficiaries directly in their start-up policy. These leading states have proposed to include the beneficiaries the most in comparison across states. It increases the social inclusivity of their start-up policies. Mentions of words addressing both Regional and Sectoral Development are led majorly by Tamil Nadu. This puts Tamil Nadu in an advantageous position when analysing policy for regional inclusivity.

2.2.5 Best Practices

In addition to schemes and initiatives, Table 2.8 covers best practices identified throughout the policy analysis. These are policies that stand out by sub-themes when comparing all the initiatives put forth by all states in study.

Sub-Theme	Best Practices Identified in Other State Policies
Domestic: Market Procurement	Startup Week (Maharashtra)
International: Exposure	International Startup Culture and Exchange Programme (Odisha)
Capital Funding	Beyond Bengaluru Cluster Seed Fund (Karnataka) Pre-Series A Funding (Gujarat) Crowdfunding (Maharashtra)
Revenue Funding and Grants	Sustenance Allowance, (Gujarat) Monthly allowance, Performance Grant for University/Institution (Odisha) Crowdfunding, CSR Funds for Incubator-support (Maharashtra)
Governance	Monitoring and Evaluation (Gujarat)
Government	Grand Challenges Karnataka (GCK) (Karnataka)
Incubator	Sector- Specific Incubators (Odisha)
Mentoring and Networking	Idea Validation by Experts: Technical feasibility, Commercialisation, Idea Refinement Support (Kerala)
Intellectual Property	IPR Support (Funding): Patents, Copyright, Trademark, International Registration of Marks, Plant Variety Registry, Semiconductor Integrated Circuits Layout (Gujarat)
Income	Monthly allowance (Prototype Stage), Marketing/Publicity assistance (Concept Commercialisation Stage) (Odisha)
Senior Citizens	Social Inclusion: Centre of Excellence for Assistive Technology (AT) (Karnataka)
Start-up Sustainability	Winding up facilities, Distressed Startup Fund, Repeated Attempt, No Failed Entrepreneur (Kerala)
Environmental Sustainability	Accelerating Transition to Circular Economy (Karnataka)

Source: CREST, IITM

Table 2.8: Best Practices Identified across states

Some of the interesting schemes and initiatives by the states under study were identified to bring out the best practices adopted or introduced by states on their start-up policies. The schemes are identified under specific sub-themes and also note the state which houses the initiatives. Some of these schemes have already been established and summarised in earlier analysis (Refer chapter 2.2) For initiatives under the theme of Regulatory Reforms, Institutional Collaboration, Provision for Equitable Growth, and Sustainability referred in chapter 2.2)

Under Access to Market, Maharashtra has “Startup Week” which provides funding for a proof-of-concept opportunity for 15-20 start-ups a year. Under Domestic Procurement, it leads to the start-ups being awarded work orders amounting to ₹10 to 15 lakhs to prove

their concept. Initiatives as such help the start-ups attain orders that support the growth of their business. Odisha has an exchange program to gather knowledge and experience from leading global start-up destinations to increase international exposure and start-up culture of the state.

Funding and Finance practices identified include “Pre-Series A Funding” by Gujarat that supports start-ups through the ‘Valley of Death’ stage of their start-up post commercialization. Crowd funding under Maharashtra provides support to social sector start-ups by matching contributions received via verified online crowdfunding platforms, as these start-ups usually face a difficulty attaining funding in the traditional methods. These funding opportunities are specific to the needs of a start-up that requires funding during a critical period of their journey. Performance Grants for University/Institution by Odisha help award institutions that manage to incubate a successful start-up (they have a criterion for success), this increases competitiveness to achieve growth and development within the incubation ecosystem. CSR Funds collected by the corporates in Maharashtra are encouraged to be used for supporting incubators, accelerators, CoE and the Startup Park. An initiative as such would help in utilization of the benefits received by the industry towards the developments of the start-up ecosystem.

Sector-Specific Incubators by Odisha is encouraged to be set up by concerned government departments, either on their own or in collaboration with private entities, in areas such as IT/ITeS, Healthcare and Sanitisation, Agri Business etc. These incubators would enhance sectoral development opportunities with the existing industries and also create avenues for new start-ups to take mentorship through expert knowledge in their specific fields. Under Mentor and Networking, Kerala has provisions for Idea Validation by Experts in terms of technical feasibility, Commercialisation, Idea Refinement Support and Technology Mentorship during Product Development, these are offered by experts established by the network of the Nodal Agency of KSUM. These initiatives help the start-ups to gain expert options on their ideas before the development of their PoC and Prototypes, enabling start-ups to make sound decisions.

2.2.6 Summary

The analysis of the six state start-up policies revealed several significant findings with practical implications. In overall comparison, Tamil Nadu overall holds a favourable position due to its lead in provisions and schemes for seven out of nine major themes identified. This implies that the state's policy is at a higher level of comprehensive support when compared with other states. Some of the consistent themes identified across the state policies were the focus on development of Support Systems, Infrastructure, and Funding and Finance initiatives. This helps in creation of a stable framework for the start-up ecosystem to build on. Our findings suggest that the start-up ecosystem requires coordination of policy implementation efforts through a downward flow of decision making. Some states have focused on creation of a tiered governance mechanism within the ecosystem that helps in decentralization of decision making. Starting from State level creation of policy to project-institute management level monitoring of fund dispersal and evaluation of start-up performance. Another finding brings forward the need for a stable environment for start-ups that incur failure and losses. Accommodation for failures within policy would benefit the start-ups within the ecosystem to persist through the critical stages of their lifecycle, with support such as distress funds and revival support. Overall, all state policies have provided a comprehensive outlook within their policies towards the development of their states unique ecosystem.

Chapter 3

Start-up Landscape in Tamil Nadu

ஞாலம் கருதினும் கைகூடும் காலம்
கருதி இடத்தாற் செயின் (Tirukkural 484)

Even the world can be conquered - if one acts at the right time and place.

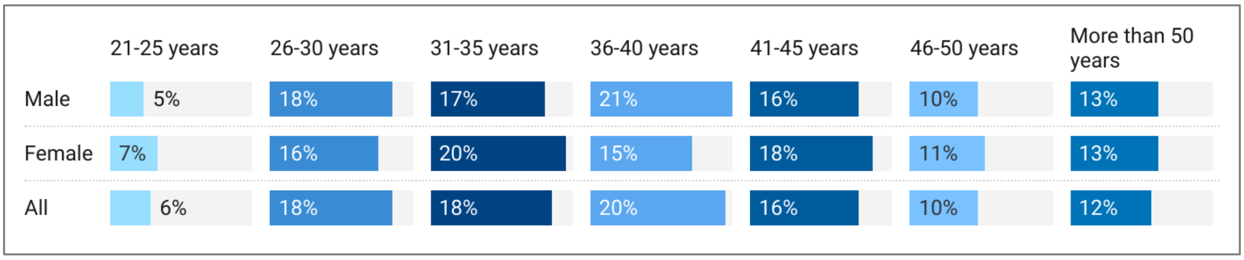
This chapter provides an in-depth perspective of the Tamil Nadu start-up ecosystem based on the findings and analysis of the data collected. By analysing various interconnected variables, we uncover the key factors shaping the state's entrepreneurial landscape and provide a holistic view of not only the ventures themselves but also the individuals driving innovation and the supportive environment enabling their success.

3.1 Respondent characteristics

HIGHLIGHTS
▪ Women entrepreneurs tend to begin their start-up journeys earlier than men, typically launching ventures between the ages of 26–30, while male founders tend to enter entrepreneurship slightly later, between 31–35 years. ▪ Majority belong to the higher SEC A category, reflecting greater access to social capital and educational advantages, leading to improved prospects for pursuing entrepreneurial ventures.

3.1.1 Gender and Age

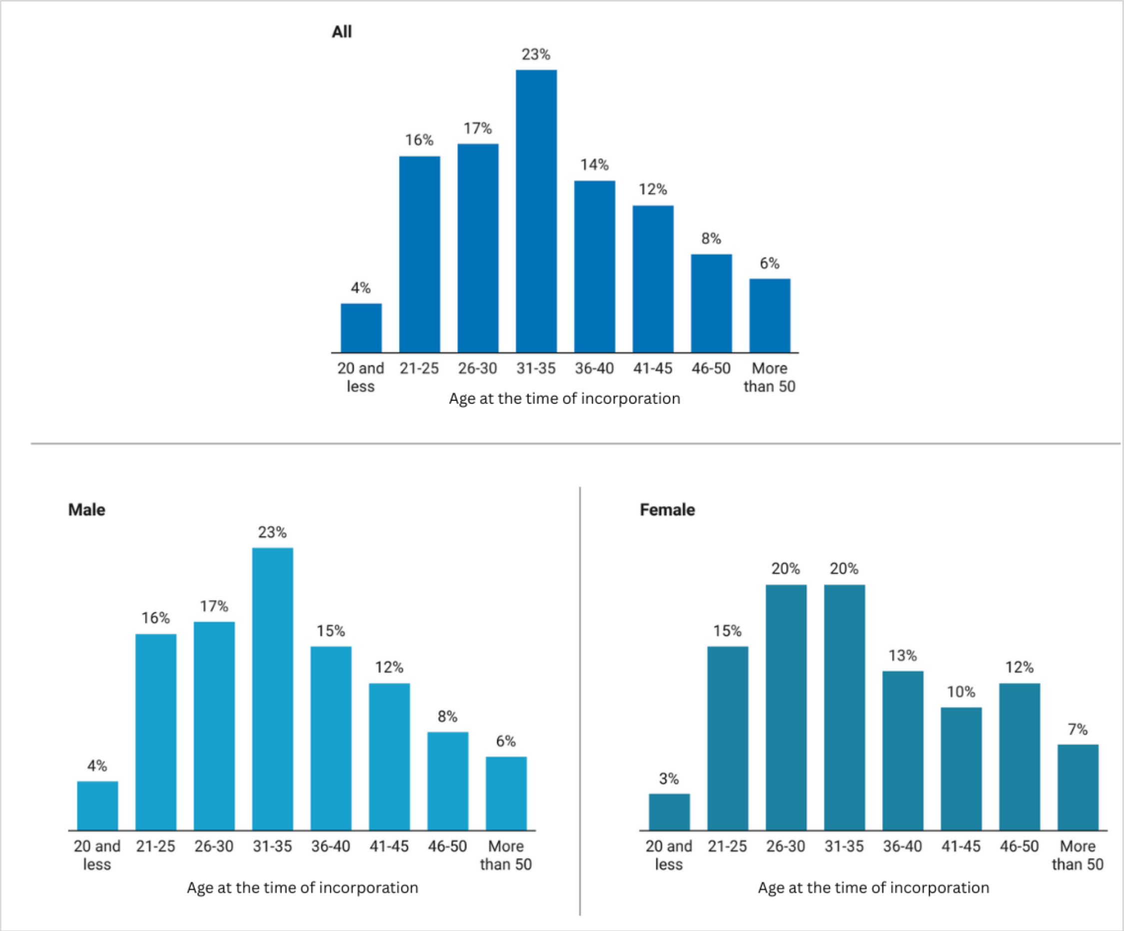
The current founder was 37.99 years across all respondents. Gender-specific patterns emerged (Figure 3.1), with nearly one-quarter of male founders concentrated in the 36-40 age bracket, while female founders tended to be younger, predominantly falling within the 31-35 age range.



N: All respondents = 422; Male = 361; Female = 61

Figure 3.1: Gender-wise distribution of respondents by current age

The age of the respondents at the time of incorporation of their start-up differed between men and women. While male founders predominantly launched their start-ups between 31-35 years of age, women entrepreneurs initiated their ventures earlier, typically between 26-30 years (Figure 3.2). This pronounced age disparity indicates that, on average, male start-up founders had more experience at the time of start-up as compared to the experience of women. The different entrepreneurial entry pathways across genders potentially reflect changing opportunities for women in the ecosystem, different career decision points, or varying motivational factors driving the timing of entrepreneurial pursuits.



N: All respondents = 422; Male = 361; Female = 61

Figure 3.2: Distribution of respondents by age at the time of start-up incorporation

3.1.2 Socio-Economic Classification (SEC)

Examining the family backgrounds of start-up founders reveals crucial patterns in how socioeconomic status shapes entrepreneurial journeys and business opportunities. This research utilises the New Consumer Classification System (NCCS), a comprehensive framework created by the Market Research Society of India (MRSI) that segments Indian households into five primary categories: SEC A, SEC B, SEC C, SEC D, and SEC E.

NCCS Classification Framework

The NCCS methodology integrates two fundamental metrics to assess household standing:

- Primary Indicator: Educational qualification of the household's primary income earner, representing the core measure of socioeconomic position
- Secondary Indicator: Ownership of consumer durables from a standardised inventory, indicating household wealth and consumption capacity

Classification Structure

The system encompasses 12 distinct grades ranging from A1 through E3, organised into three broad socioeconomic tiers:

- Upper Tier: A1, A2, and B1 segments representing the highest consuming class
- Middle Tier: B2 and C segments forming the middle socioeconomic stratum
- Lower Tier: D, E1, and E segments comprising the lowest socioeconomic segment

This classification system facilitates a thorough investigation into the relationship between family socioeconomic background and entrepreneurial outcomes, revealing how economic positioning influences start-up founding patterns throughout India's diverse economic landscape.

The list of consumer durables includes:

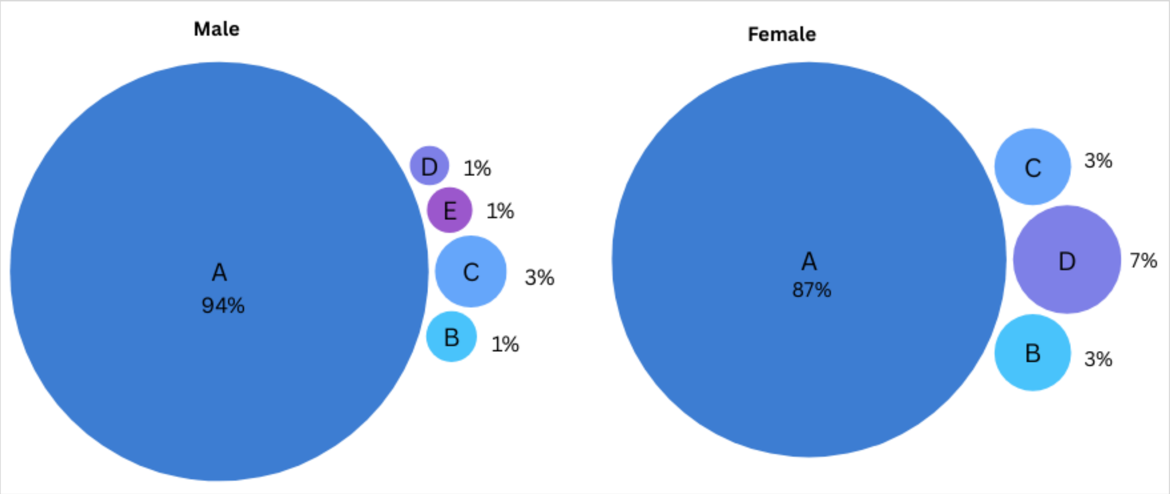
1. Electricity Connection
2. Ceiling Fan
3. LPG Stove LPG
4. Two-Wheeler
5. Colour TV
6. Refrigerator
7. Washing Machine
8. Personal Computer/Laptop
9. Car/Jeep/Van
10. Air Conditioner
11. Any agricultural land

Based on the educational level and the number of durables owned, the SEC is determined using the grid below:

NCCS GRID							
TOTAL NUMBER OF DURABLES	EDUCATION						
	Illiterate	Literate but no formal schooling/ School – Upto 4 years	School 5-9 years	SSC/ HSC	Some College (including Diploma) but not Grad	Graduate/ Post-Graduate - General	Graduate/ Post-Graduate - Professional
TOTAL HOUSEHOLD ITEMS	1	2	3	4	5	6	7
None	E3	E2	E2	E2	E2	E1	D2
1	E2	E1	E1	E1	D2	D2	D2
2	E1	E1	D2	D2	D1	D1	D1
3	D2	D2	D1	D1	C2	C2	C2
4	D1	C2	C2	C1	C1	B2	B2

NCCS GRID							
TOTAL NUMBER OF DURABLES	EDUCATION						
	Illiterate	Literate but no formal schooling/ School – Upto 4 years	School 5-9 years	SSC/ HSC	Some College (including Diploma) but not Grad	Graduate/ Post-Graduate - General	Graduate/ Post-Graduate - Professional
5	C2	C1	C1	B2	B1	B1	B1
6	C1	B2	B2	B1	A3	A3	A3
7	C1	B1	B1	A3	A3	A2	A2
8	B1	A3	A3	A3	A2	A2	A2
9+	B1	A3	A3	A2	A2	A1	A1

Based on this classification, a large majority of the start-up founders belonged to the SEC A category, characterised by households where the chief wage earner possesses a high level of education (graduate or postgraduate, either general or professional) and owns multiple consumer durables such as a car, air conditioner, or personal computer. Comparatively, a higher proportion of male respondents belonged to SEC A compared to the proportion of women (Figure 3.3). The proportion of start-up founders belonging to SEC B, C, D, and E categories has been quite limited in the case of both men and women.



N: All respondents = 422; Male = 361; Female = 61

Figure 3.3: Gender-wise distribution of respondents by SEC

3.1.3 Education

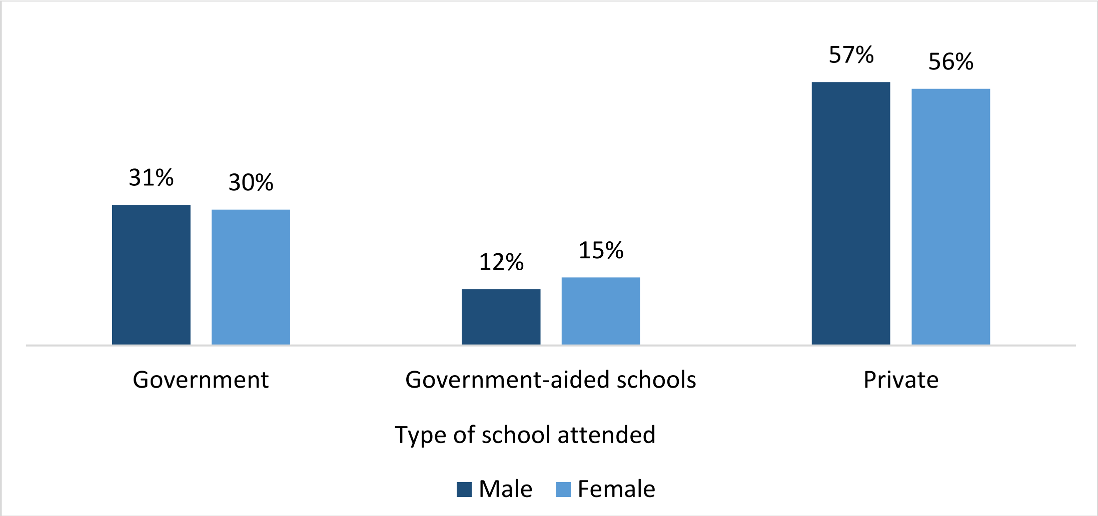
3.1.3.1 School education

HIGHLIGHTS
▪ Women demonstrate higher school educational attainment than men, reflecting a positive trend in female educational advancement. ▪ SEC A respondents predominantly choose private schools, while SEC B, C, and D categories prefer government institutions ▪ The Tamil Nadu State Board has emerged as the dominant curriculum among all respondents, irrespective of the type of schooling. ▪ There has been no significant difference on the preferred language of instruction. Both Tamil and English have been equally preferred by the respondents.

School educational attainment among respondents is remarkably high, with 94 percent having completed higher secondary education (11th to 12th grade). Women respondents demonstrate a slightly higher completion rate of higher secondary education (98 percent) compared to their male counterparts (94 percent), highlighting a positive trend in women's educational advancement within the sample population.

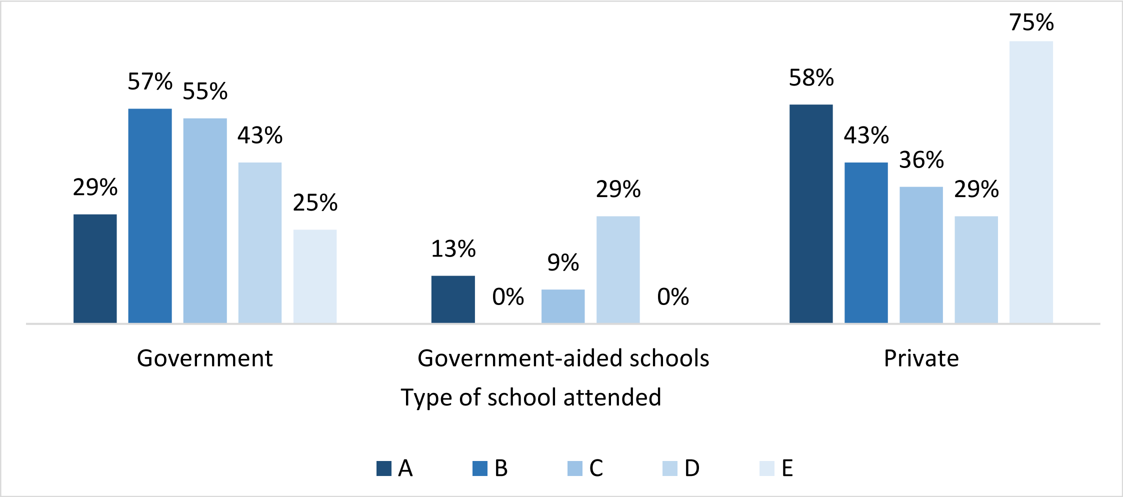
Type of school attended

Majority of the respondents went to private schools, indicating the ability of the parents to afford private schools thereby also affirming their SEC A category. While gender analysis reveals no significant differences in school type selection (Figure 3.4), socio-economic classification (SEC) demonstrates clear patterns (Figure 3.5). SEC A respondents mostly prefer private schooling, reflecting their greater financial capacity and preference for these institutions. In contrast, government schools emerge as the preferred choice among SEC B, C, and D categories, indicating the accessibility of state-funded education among these socio-economic segments. This trend highlights the effectiveness of government educational initiatives in not only reaching and serving these population groups but also in nurturing future entrepreneurs who subsequently create value through innovation, job creation, and economic development.



N: Respondents who have completed any level of schooling = 421; Male = 360; Female = 61

Figure 3.4: Gender-wise distribution of respondents by the type of school attended

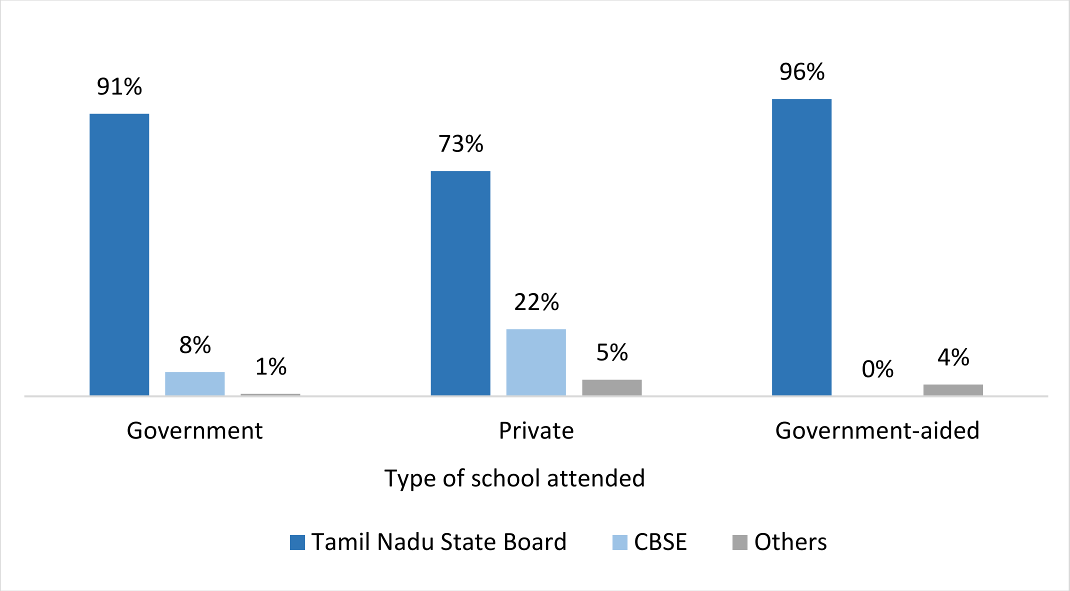


N: Respondents who have completed any level of schooling = 421; Male = 360; Female = 61

Figure 3.5: SEC-wise distribution of respondents by the type of school attended

Type of school education board

Regardless of their school type (private, government, or government-aided, the Tamil Nadu State Board curriculum emerges as the preferred choice among the respondents. This widespread adoption of the state board syllabus demonstrates its pervasive influence on the educational landscape, establishing a common academic foundation among entrepreneurs despite differences in school governance structures.

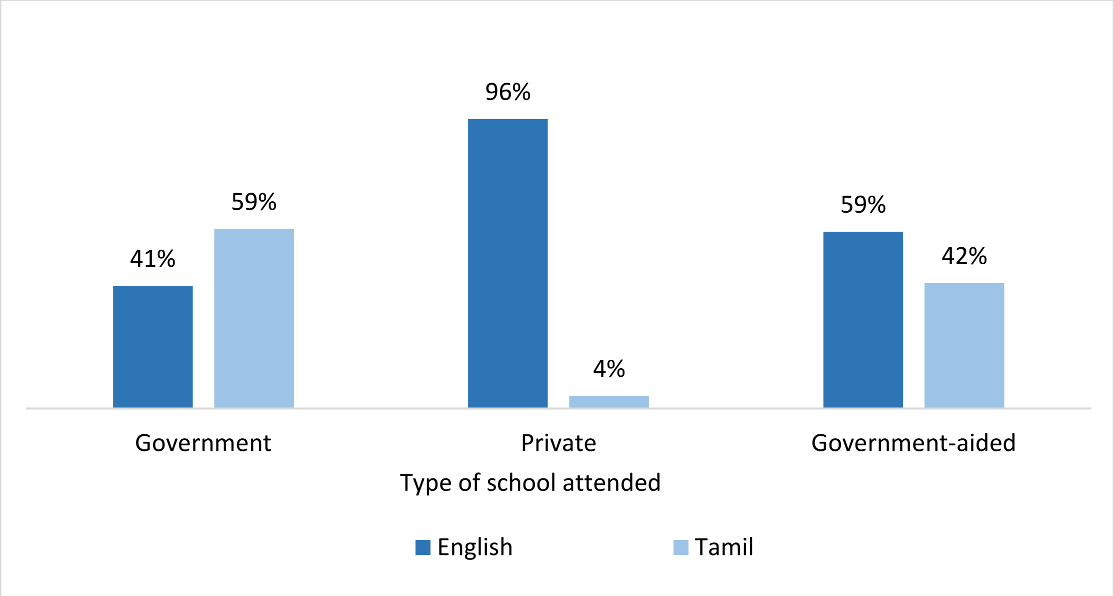


N: Respondents who have completed any level of schooling = 421; Government = 128; Private = 240; Government-aided = 53

Figure 3.6: Distribution of respondents by types of school and school education board

Medium of instruction

As presented in Figure 3.7, the dominant medium of instruction was English in private schools (96 percent) and government-aided schools (59 percent). Conversely, Tamil serves as the primary instructional language across the majority of government (59 percent) schools. Notably, this finding reveals that the success of the entrepreneurs has not been limited by the choice of instructional language in schools. Several successful start-up founders have emerged even after pursuing the Tamil medium of instruction in their schooling.



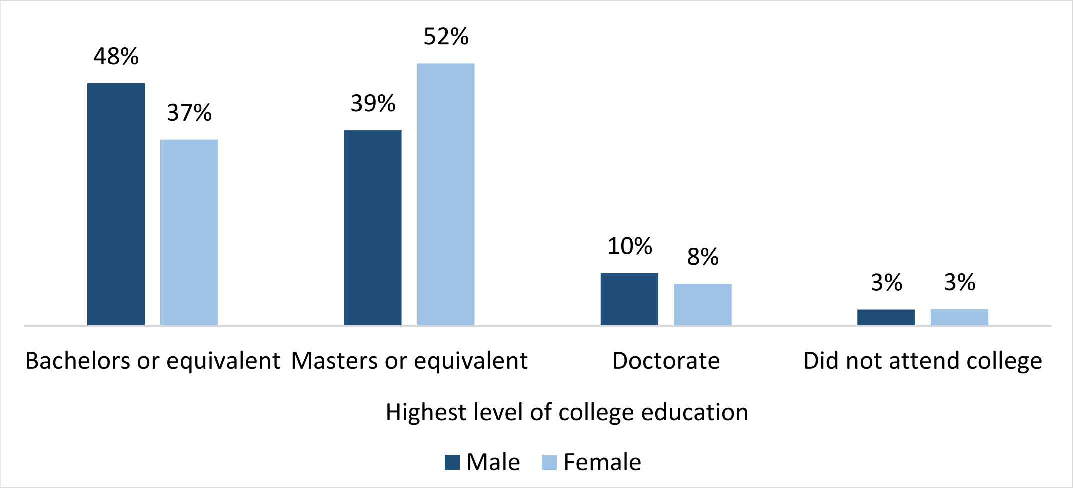
N: Respondents who have completed any level of schooling = 421; Government = 128; Private = 240; Government-aided = 53

Figure 3.7: Distribution of respondents by type of school and medium of instruction

3.1.3.2 College education

HIGHLIGHTS
▪ Women show higher levels of educational attainment, with over 50 percent completing master's degrees compared to 39 percent of men. ▪ The proportion of respondents who have pursued Masters' degrees have been higher among the power SEC groups (B, C, D) as compared to respondents in SEC A, though doctoral degrees remain exclusive to SEC A respondents. ▪ Engineering consistently ranks as the preferred discipline across all college education levels, highlighting the vital role of engineering institutions in start-up formation ▪ While male respondents consistently prefer engineering across all education levels, a significant percentage of female respondents also preferred sciences apart from engineering ▪ Lower SEC categories have pursued non-technical disciplines as compared to SEC A categories ▪ Government funded institutions are the predominant choice for higher education across all levels, followed by private colleges as the second most popular option. ▪ Respondents are predominantly high academic achievers, with most earning first class or first class with distinction across all three levels of higher education.

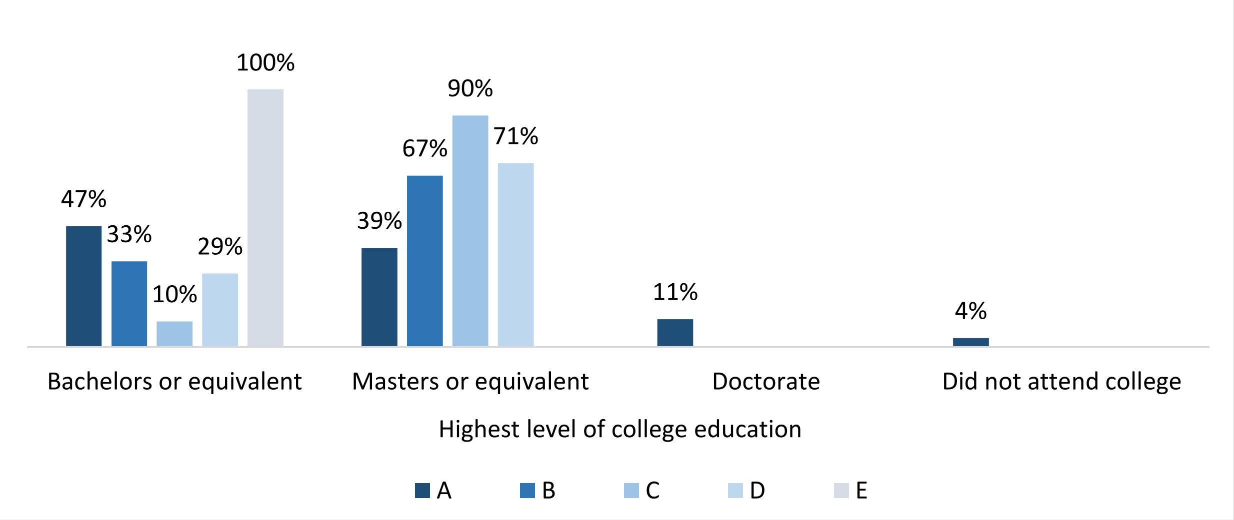
A large percentage of respondents have completed college education, with 97 percent having completed either a bachelor's, master's or a doctorate as their highest level of college education. A higher proportion of women respondents have completed master's degrees as compared to that of men (over 50 percent and 39 percent, respectively). Almost an equal proportion of male and female respondents have completed their doctoral degrees, indicating good accessibility to higher education in the state among both men and women.



N: Respondents who have completed any level of higher education = 395; Male = 335; Female = 60

Figure 3.8: Gender-wise distribution of respondents by the highest level of college education

The SEC analysis reveals an interesting educational pattern across categories. Lower SEC groups (B, C, and D) demonstrate a stronger emphasis on obtaining master's degrees compared to SEC A, with only 39 percent of SEC A respondent's completing master's or equivalent education. However, respondents with doctoral degrees. This divergence highlights both the educational aspirations across socioeconomic segments and the significant barriers that may prevent students from lower SEC categories from pursuing doctoral-level education.

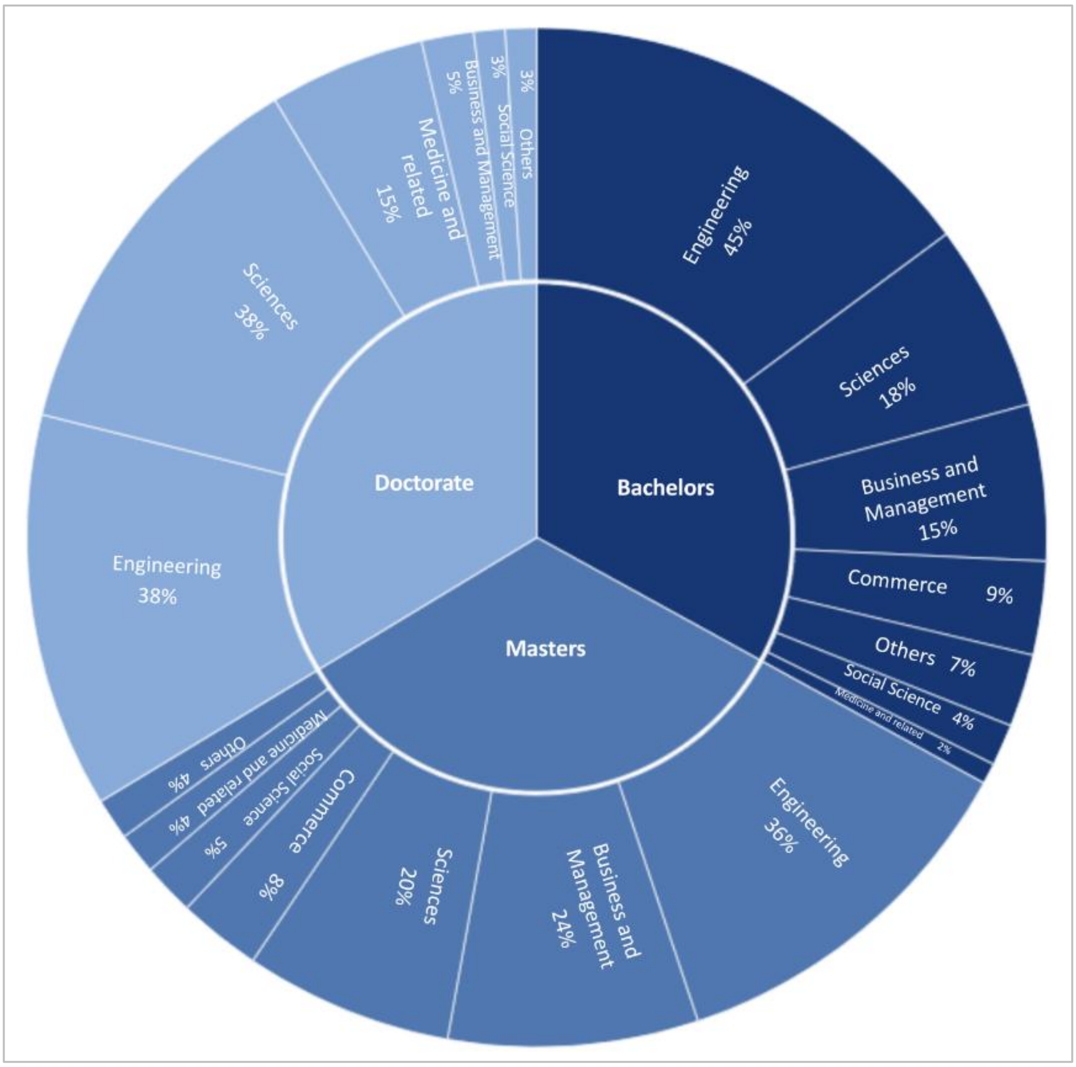


N: Respondents who have completed any level of higher education = 395; Mal =335; Female = 60

Figure 3.9: SEC-wise distribution of respondents by the highest level of college education

Subject Specialisation

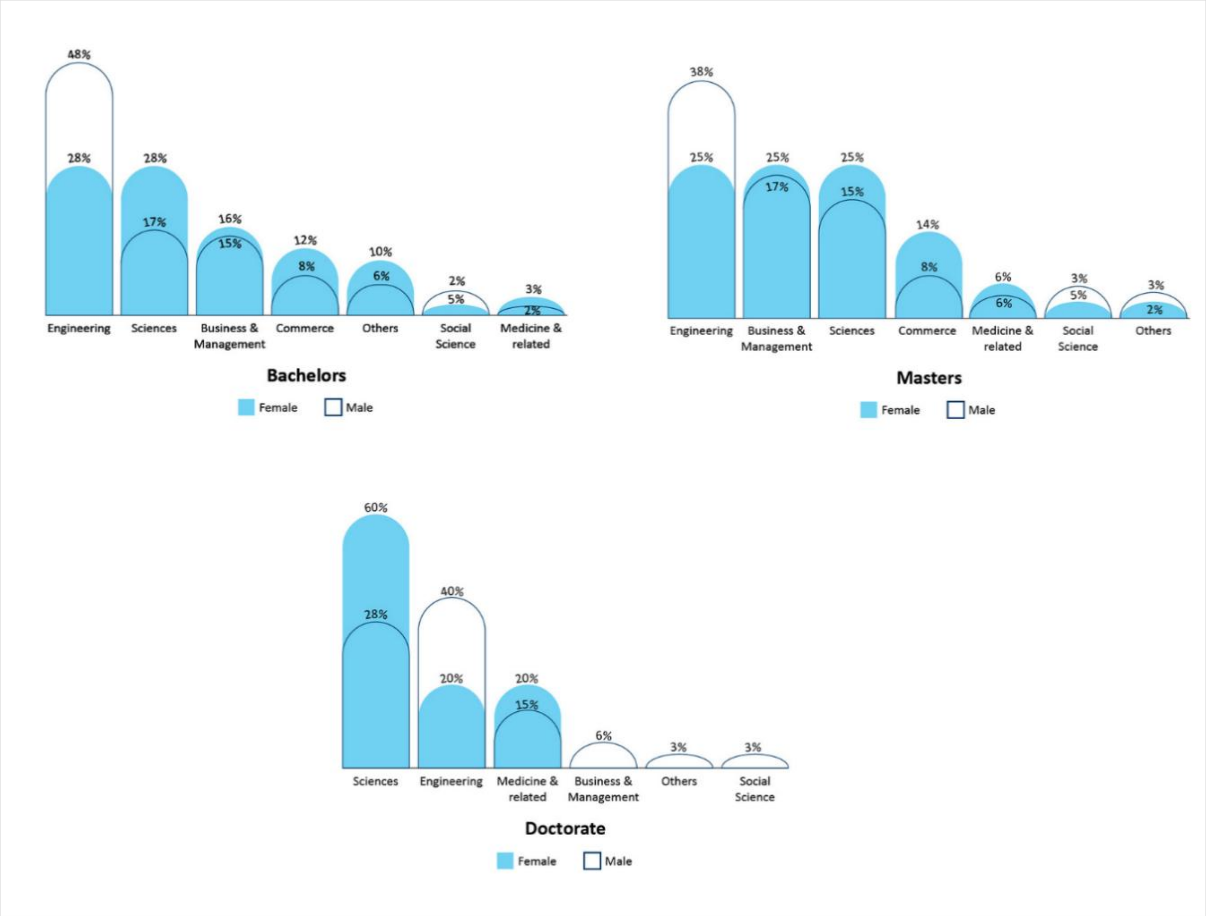
Engineering, Sciences, and Business and Management emerge as the three most sought-after degree subjects among the respondents (Figure 3.10). Engineering consistently ranks as the top preference across all three levels of college education, reflecting the significant contribution of engineering institutions in nurturing technology and innovation driven start-ups. Following engineering, sciences rank as the second most favoured choice for Bachelor's and Doctoral degrees. Meanwhile, Business and Management courses are also highly ranked at the Bachelor's and Master's levels, showcasing their appeal in professional development.



N: Respondents who have completed any level of higher education = 395; Male = 335; Female = 60

Figure 3.10: Distribution of respondents by degree topic

Engineering has been the top choice among male respondents across all levels of college, suggesting that technical expertise plays a foundational role in establishing start-ups, particularly those rooted in engineering solutions, technology development, and innovation. Female respondents, however, show a varied preference, leaning toward both Engineering and Sciences during their Bachelor's and Master's studies, and predominantly choosing Sciences for their doctoral programs. These indicate that technology and science play an important role in start-up formation, given that the start-ups are founded on the basis of technology and innovation.

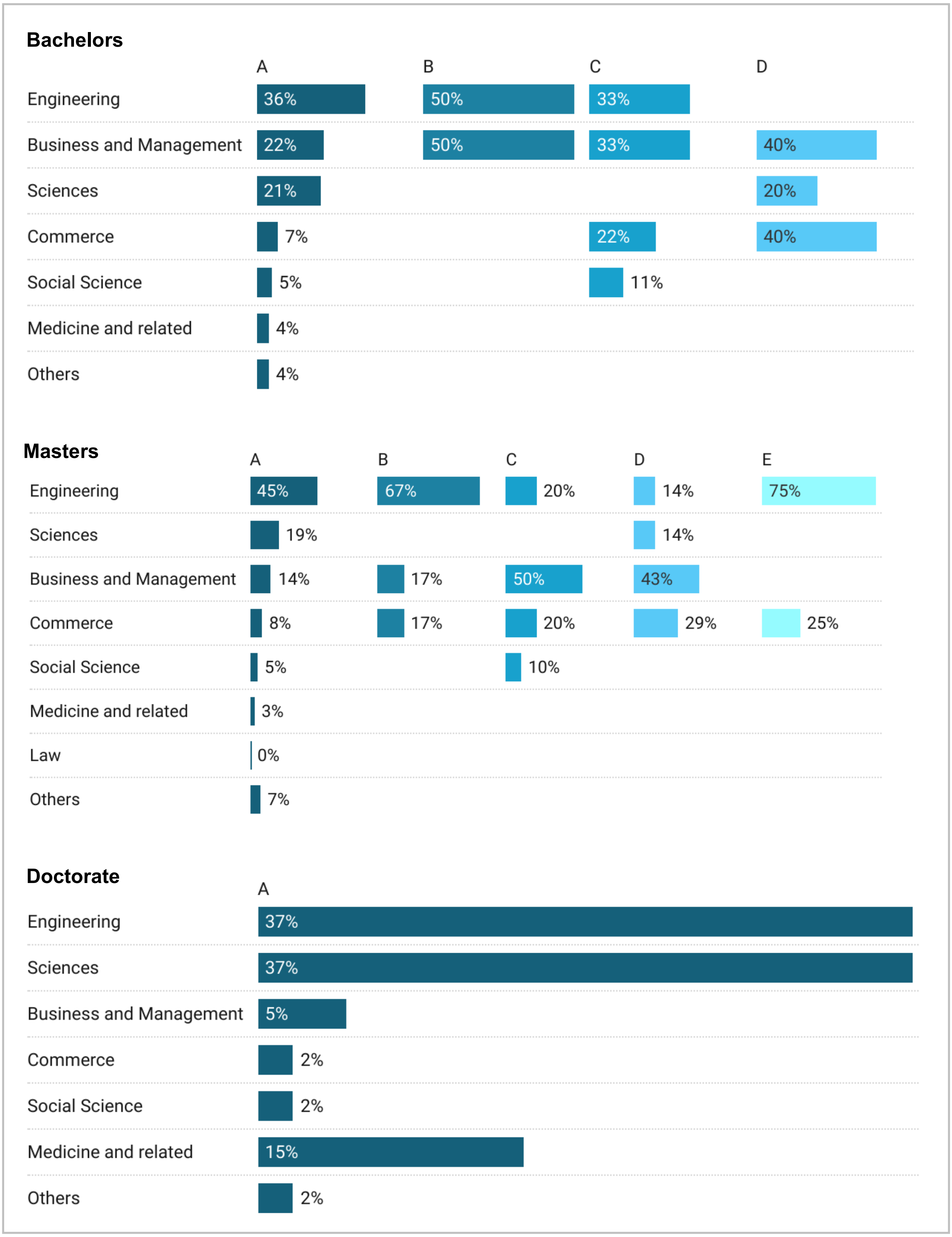


N: Respondents who have completed any level of higher education=395; Male= 335; Female = 60

Figure 3.11: Gender-wise distribution of respondents by the degree topic

However, subject specialisation varies among SEC categories. Engineering emerges as the most favoured choice among respondents in SEC A, regardless of the degree level, highlighting access to resources, opportunities, and a focus on high-income, technical professions (Figure 3.12). As the SEC scale moves downward, an increasing preference for non-technical disciplines is observed. While SEC B respondents also show a strong preference for engineering, they show notable interest in fields like Business and Management and Commerce, particularly at the Master's level.

In contrast, respondents from SEC C and D show a more pronounced inclination toward non-technical courses, including Business and Management, Sciences, Commerce, and Social Sciences. The shift toward non-technical courses indicates a preference for fields perceived as more accessible, affordable, or aligned with their immediate career needs.

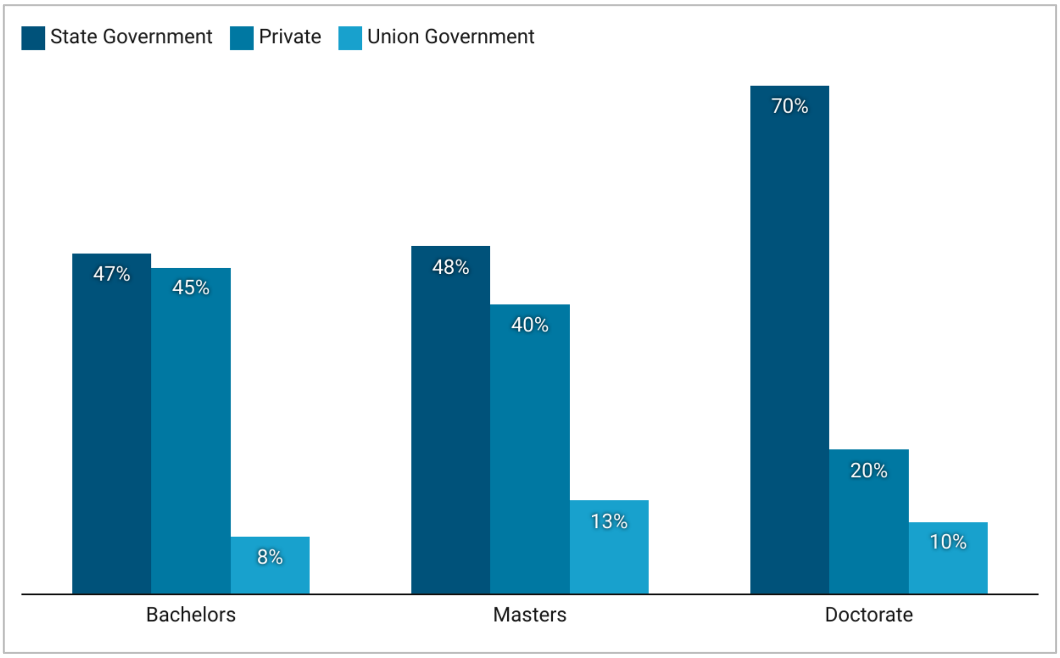


N: Bachelors = 382; Masters = 200; Doctorate = 40

Figure 3.12: SEC-wise distribution of respondents by the degree topic

Type of college attended

A majority of the respondents have studied in government-funded institutions (either state or union government) (Figure 3.13). For the bachelor's degree, 55 percent of the respondents have studied in government-funded institutions, which increases to 61 and 80 percent for the master's and doctorate degrees. Between the state and union government-funded institutions, the share of state government-funded institutions has been significantly higher. This strong preference for state institutions demonstrates the pivotal role of State government-funded Higher Education Institutions (HEIs) in cultivating the entrepreneurial ecosystem in the state.

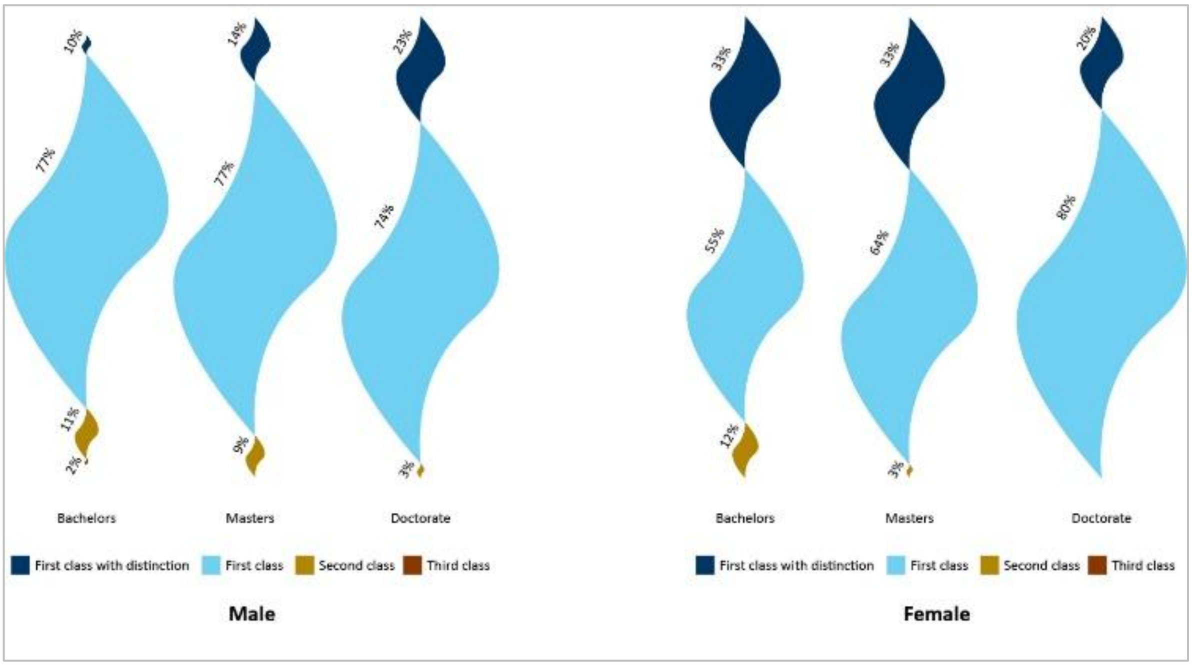


N: Bachelors = 382; Masters = 200; Doctorate = 40

Figure 3.13: Gender-wise distribution of respondents by type of college attended

Marks secured

Figure 3.14 reveals that respondents predominantly represent high-achieving individuals, with most securing either a first-class or a first-class with distinction degree across all three levels of higher education. Notably, female respondents outperform their male counterparts in achieving first-class honours with distinction, highlighting women's superior academic performance. These findings demonstrate that the start-up ecosystem has been primarily driven by academically accomplished individuals.



N: Respondents who have completed any level of higher education=395; Male= 335; Female = 60

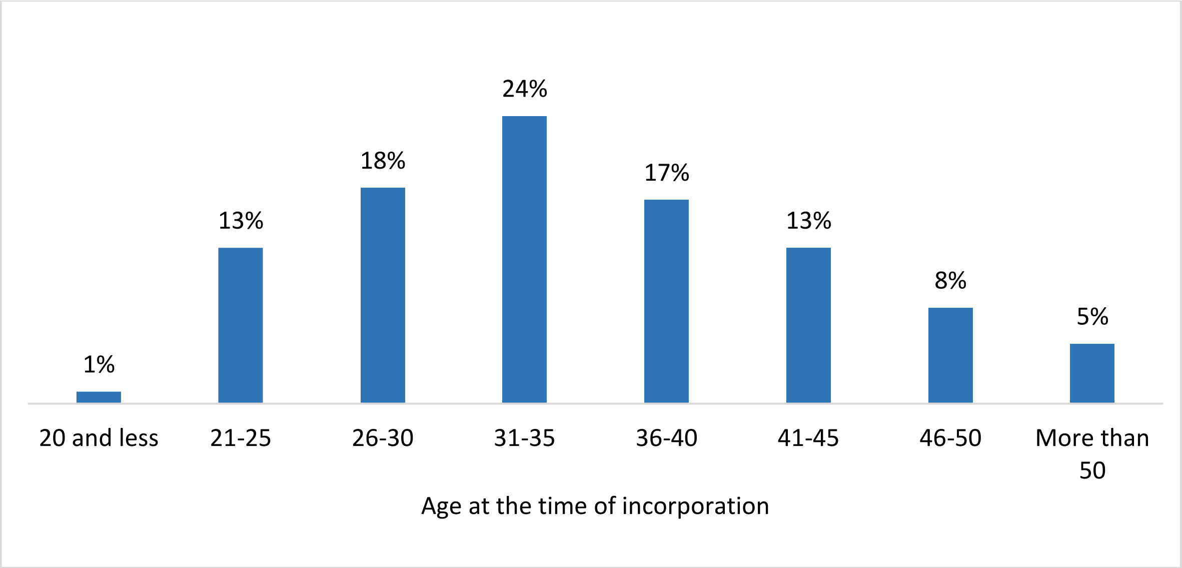
Figure 3.14: Gender-wise distribution of respondents by marks secured

3.2 Prior work experience

HIGHLIGHTS
▪ The highest proportion of founders (24 percent) belonged to age bracket 31-35, suggesting that mid-career professionals strike an ideal balance of experience, flexibility, and risk tolerance for entrepreneurship.

Prior professional experience is significant among entrepreneurs, with 69 percent of respondents reporting work history before launching their ventures. Male respondents are likely to have prior work experience at the time of starting their venture (87 percent) as compared to their female counterparts (13 percent). The years of work experience of about 10 years imply that most entrepreneurs build considerable industry knowledge, professional networks, and skill sets before transitioning to entrepreneurship, suggesting that career experience is seen as a valuable foundation for successful venture creation and management.

Figure 3.15 reveals that entrepreneurs with prior work experience predominantly launched their ventures between the ages of 31-35 years (24 percent).



N: All respondents = 288

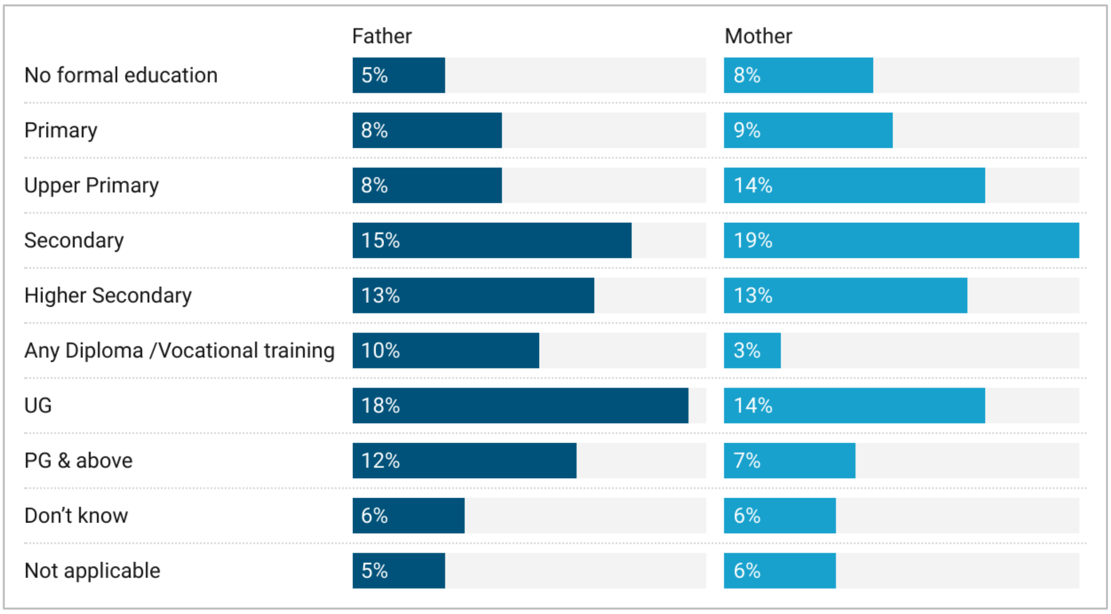
Figure 3.15: Prior work experience by age at the time of start-up incorporation

3.3 Parents' highest level of education and occupation

HIGHLIGHTS

- While most mothers had received formal education, fathers demonstrated higher rates of advanced academic achievement, with more frequently holding post-graduate degrees or higher qualifications.
- Fathers predominantly served as primary income earners, with significant representation in business or commercial activities and agricultural sectors. In contrast, mothers typically assumed domestic responsibilities as homemakers.

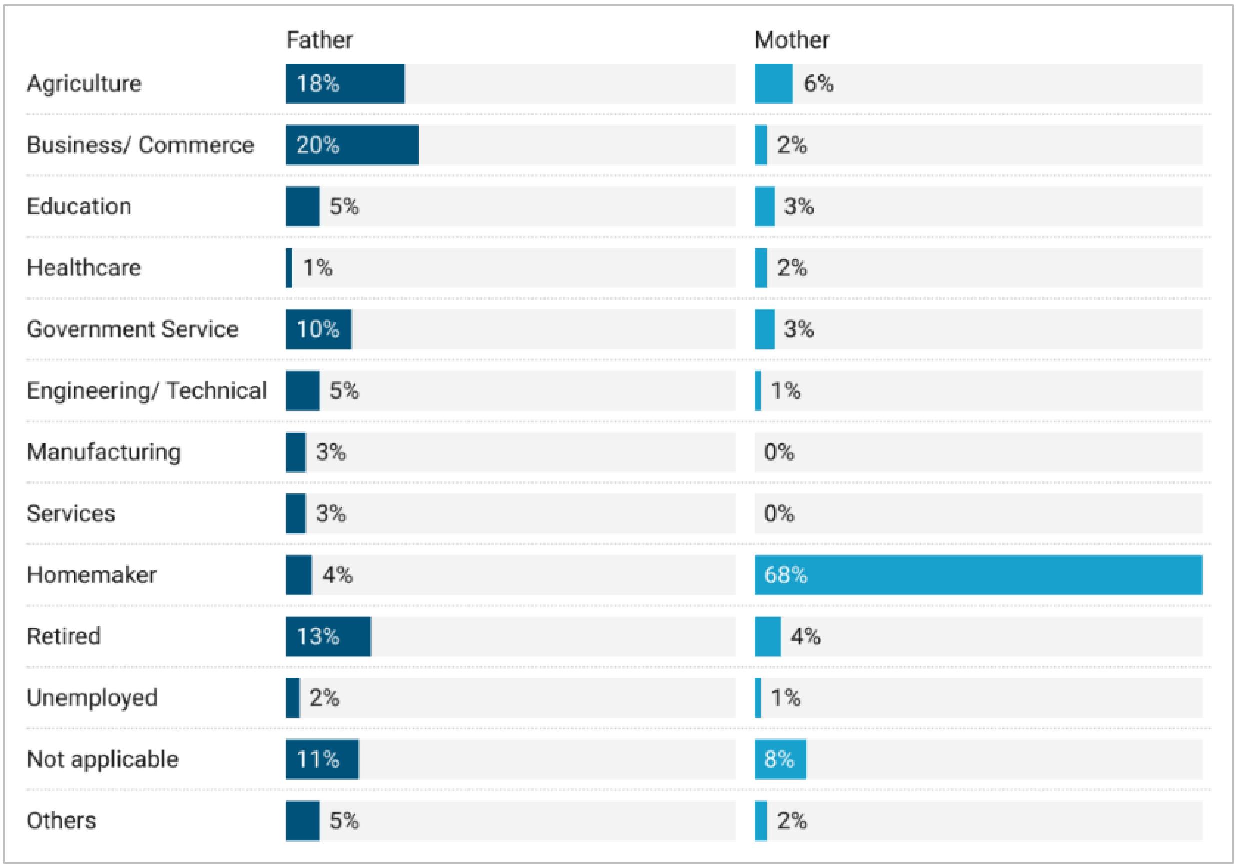
Founders' parental education and occupation provide valuable insights into how socio-economic backgrounds influence entrepreneurial trajectories. Figure 3.16 presents data on parents' educational attainment. As expected, the proportion of fathers who have pursued higher education (UG and above) was higher (30 percent) when compared to that of mothers (21 percent). While the majority of mothers (55 percent) had completed some level of formal schooling, fathers were more likely to have attained post-graduate degrees or higher qualifications.



N: All respondents = 422

Figure 3.16: Distribution of respondents by parents' highest level of education

Figure 3.17 reveals distinct gender-based roles within founders' families. Fathers predominantly served as primary income earners, the top two ranked professions being business or commercial activities (20 percent) and agricultural sectors (18 percent). In contrast, mothers typically assumed domestic responsibilities as homemakers. This occupational distribution reflects the prevailing gender norms in the society. The early exposures to entrepreneurial mind-sets through paternal examples may have influenced founders' subsequent career choices and comfort with business risk-taking.



N: All respondents = 422

Figure 3.17: Distribution of respondents by parents' occupation

Dominance of the informal sector

Approximately 60-65 percent of fathers likely worked in the informal sector (including the 18 percent in agriculture and part of the 20 percent in business and commercial activities). About 65-70 percent of mothers were homemakers, with only 25-30 percent being engaged in some form of economic activity. The informal sector background appears to have provided these future entrepreneurs with crucial skills like risk tolerance, resource optimisation, and market sensitivity - all essential for start-up success. The fact that parents invested in their children's education despite often working in informal occupations also demonstrates the aspirational nature of these families.

The Education – Occupation Matrix

To analyse the social and professional backgrounds of parents, education and occupation levels have been systematically categorised into "Low," "Medium," and "High". This classification provides a structured framework to understand the influence of socio-economic factors in pursuing entrepreneurship.

1. Education Levels

Education levels reflect an individual's formal academic attainment, ranging from no schooling to advanced degrees:

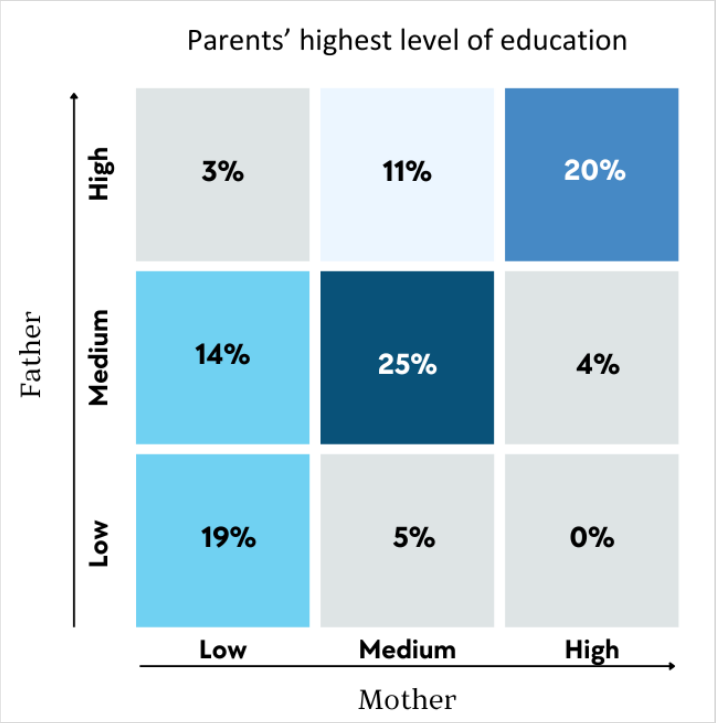
Category	Education Level
Low	• No formal education • Primary schooling (up to 5th grade) • Upper Primary (6th to 8th grade)
Medium	• Secondary education (9th to 10th grade) • Higher secondary education (11th to 12th grade) • Any diploma or vocational training
High	• Undergraduate degrees (e.g., Bachelor's degree) • Postgraduate degrees and above (e.g., Master's, Doctorate)

2. Occupation Levels

Occupations are grouped by their professional complexity, skill requirement, and socio-economic status:

Category	Occupation
Low	• Unemployed individuals • Homemakers
Medium	• Business/Commerce (e.g., shop owners, traders) • Services (e.g., drivers, cleaners) • Manufacturing (e.g., factory workers, craftsmen) • Agriculture (e.g., farmers, fishermen) • Government service (e.g., civil servants, other than Group A and Group B, police officers at the lower hierarchies)
High	• IT/Software professionals (e.g., software developers, IT consultants) • Engineering/Technical roles (e.g., engineers, technicians) • Healthcare roles (e.g., doctors, nurses) • Education professionals (e.g., teachers, professors)

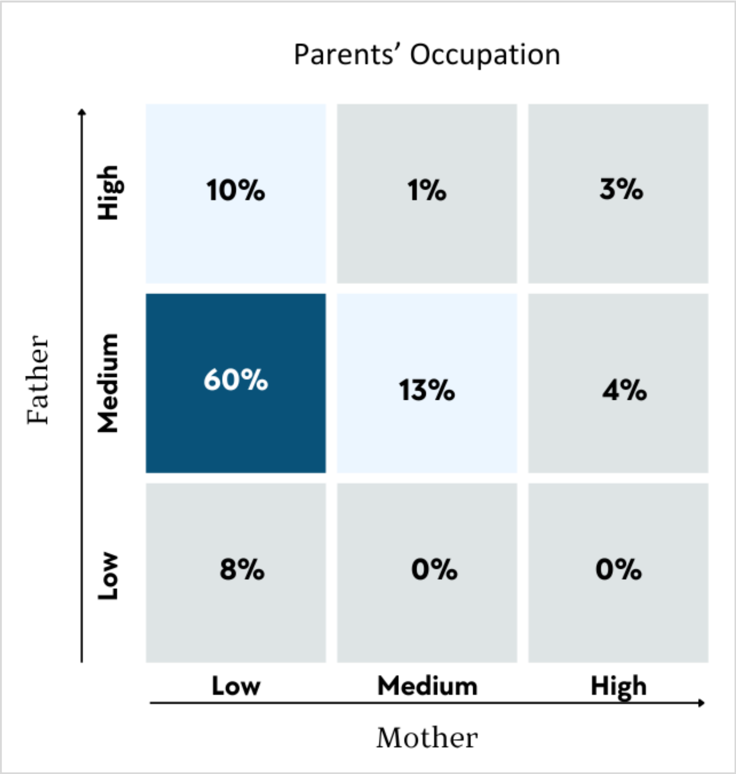
The parents' highest level of education matrix (Figure 3.18) demonstrates that start-up founders predominantly come from highly educated families, with 20 percent having both parents holding high-level education (undergraduate degrees or above), and another 25 percent having fathers with medium-level education paired with highly educated mothers.



N: All respondents = 422

Figure 3.18: Parents' highest level of education matrix

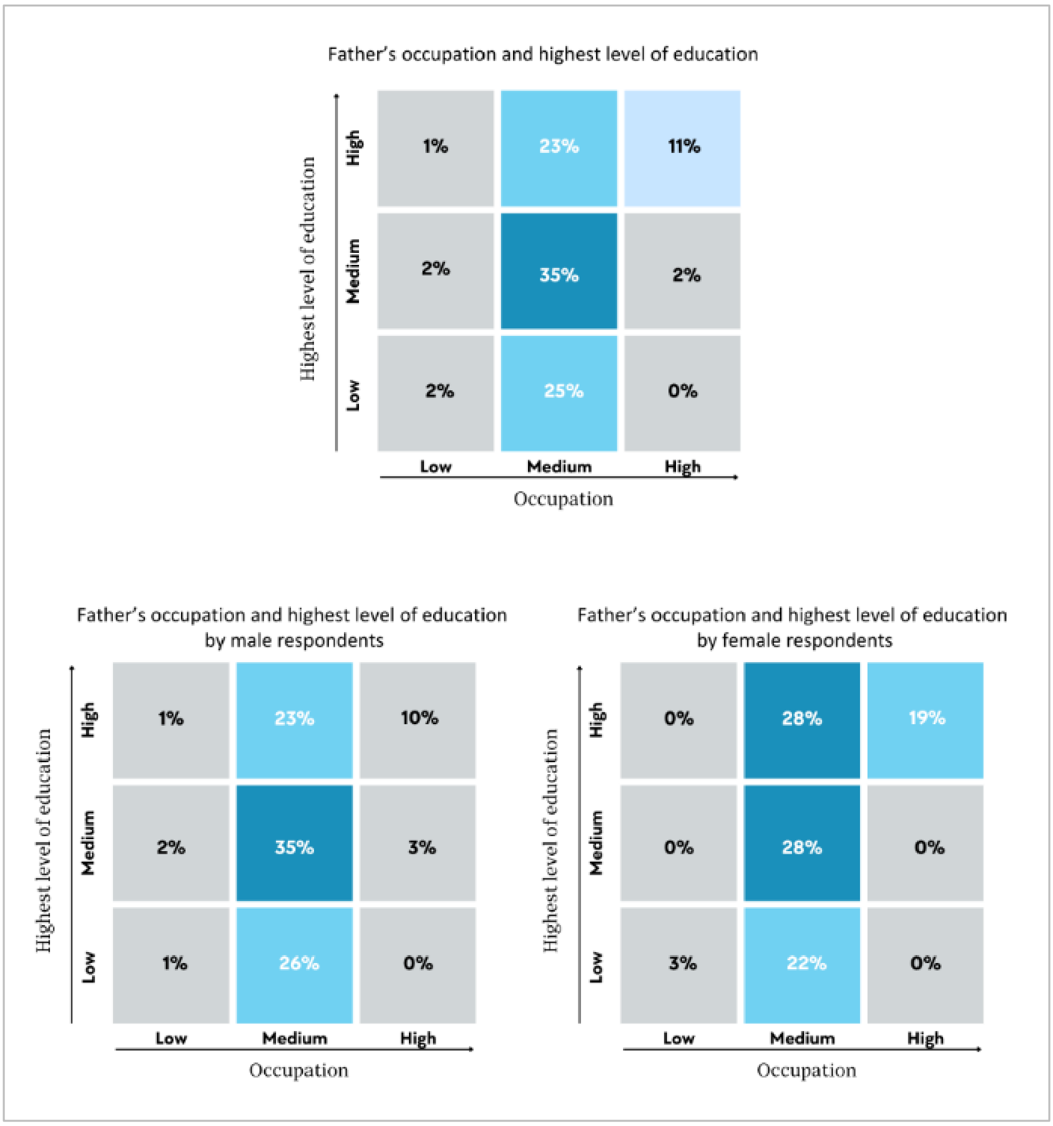
The occupational matrix (Figure 3.19) reveals an even more pronounced pattern of socioeconomic privilege among start-up founders' families compared to the educational data. The most striking finding is that 60 percent of start-up founders have fathers in medium-level occupations (business/commerce, services, manufacturing, agriculture, or mid-level government roles) combined with mothers in low-level occupations (unemployed or homemakers), suggesting a traditional family structure where fathers are the primary breadwinners in middle-class households. Only 3 percent of founders come from families where both parents hold high-level professional occupations (IT, engineering, healthcare, or education), while another 13 percent have fathers in medium-level roles paired with mothers in similar occupations.



N: All respondents = 422

Figure 3.19: Parents' occupation matrix

A cross-analysis of both fathers' occupations and the highest level of education by the founder's gender reveals interesting patterns reflecting the socio-economic status of the families. Data indicate that most male founders come from families where the father's education and occupation have been classified as the medium category (Figure 3.20). Coming from such backgrounds, these founders, irrespective of gender, may have had the drive to break traditional economic barriers, motivated by a desire to achieve financial independence, create an impact, or prove their capabilities to society. The emphasis on education and its transformative power likely played a pivotal role in their journey. It's possible their parents, despite being in medium-level occupations themselves, viewed their children's education as the best investment for a brighter future. This mindset aligns with the entrepreneurial spirit, where self-belief, resourcefulness, and ambition are essential traits.

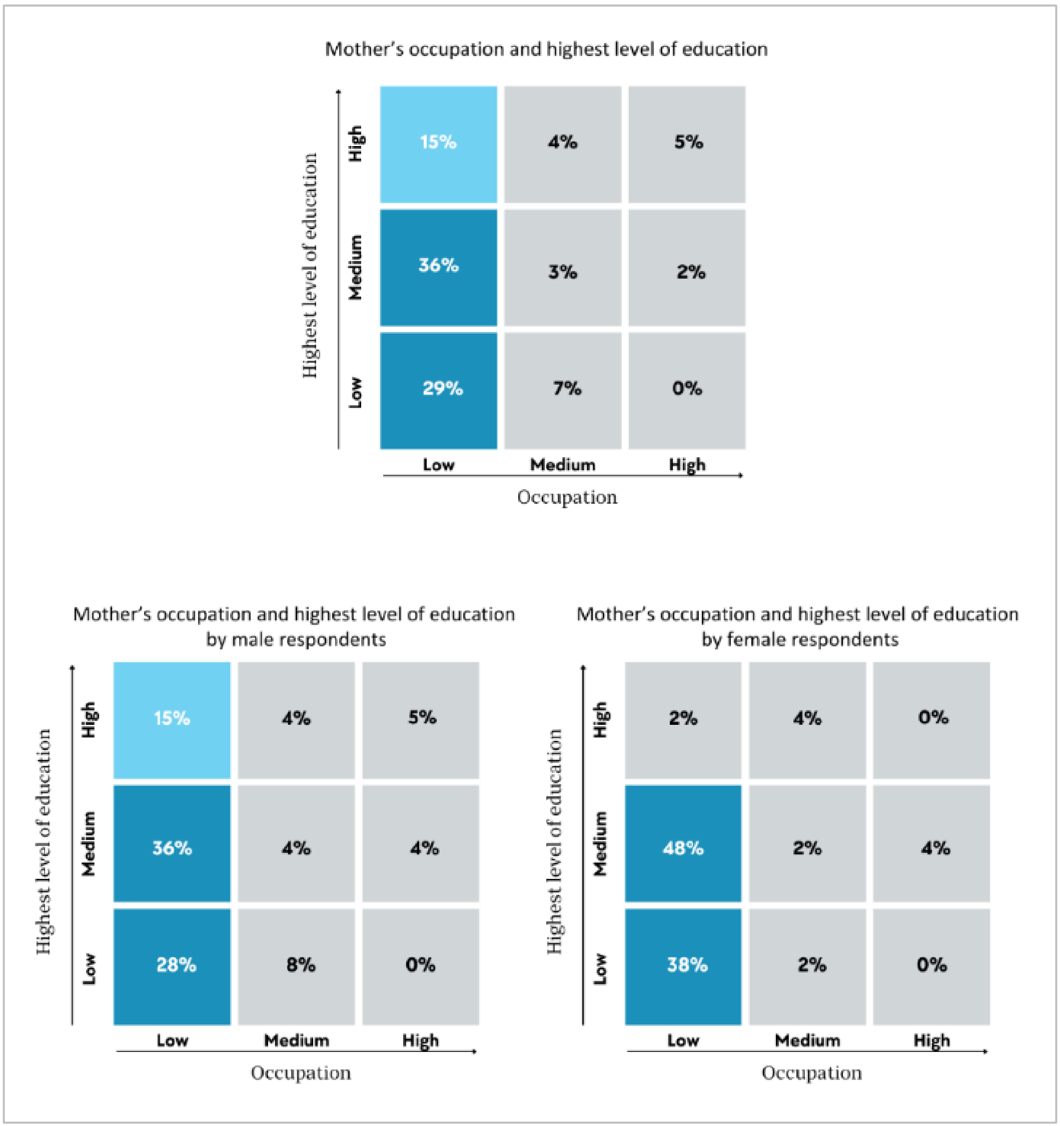


N: All respondents = 422

Figure 3.20: Father's highest level of education and occupation matrix

Most mothers, across all education levels, are found in "Low" occupational categories (Figure 3.21). This may reflect broader societal and economic trends, such as limited opportunities for women or a focus on traditional roles that emphasise family responsibilities over professional advancement.

Despite these patterns, the fact that their children have become start-up founders speaks of a cultural emphasis on education and ambition. The mothers may have played a pivotal role in instilling values of determination and resilience, even while managing lower-level occupations themselves.



N: All respondents = 422

Figure 3.21: Mother's highest level of education and occupation matrix

3.4 Profile of Start-ups surveyed

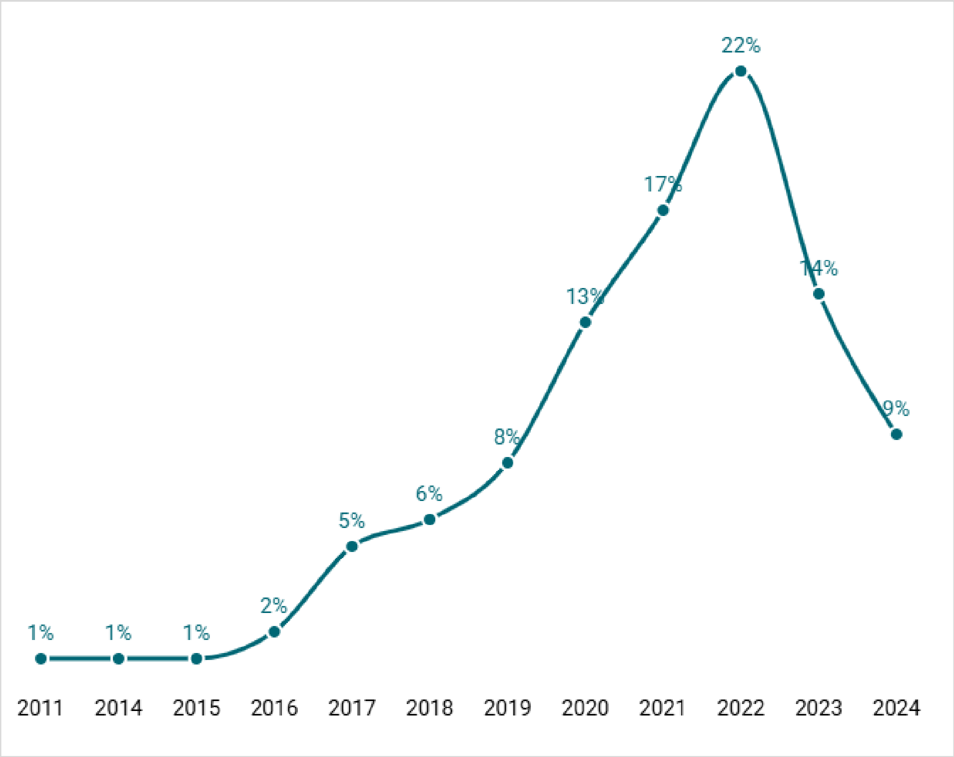
HIGHLIGHTS

- Most surveyed start-ups were incorporated in 2021 or later, demonstrating the impact of policy focus on start-ups by the Government of Tamil Nadu
- The start-ups present a healthy representation across all developmental phases, though weighted toward the early traction stage of entrepreneurial development and the scaling stage.
- Services, product-based businesses, and manufacturing represent the primary business types among surveyed start-ups.
- The leading industry sectors include information technology, healthcare, agriculture, and food and beverages.
- Knowledge-intensive sectors like education, communication services, and construction sectors favour consulting approaches, while product-oriented sectors

HIGHLIGHTS
like agriculture, food and beverages, and fashion and clothing tend toward manufacturing, retail, or e-commerce models. ▪ Direct-to-Consumer (D2C) represents the dominant business model among surveyed start-ups and predominates in product-based businesses, services, retail operations, e-commerce platforms, and healthcare start-ups. ▪ The domestic market across the country represents the primary focus for most start-ups

3.4.1 Year of incorporation

Of the 422 start-ups surveyed, nearly two-thirds (62 percent) were incorporated in 2021 or later (Figure 3.22), demonstrating the ground level impact of the government's policy focus and the active role played by StartupTN, the nodal agency for entrepreneurship and innovation established under the Department of Micro, Small and Medium Enterprises in 2021. This temporal clustering suggests that StartupTN's initiatives have successfully stimulated entrepreneurial activity across the region, significantly accelerating new venture formation during a relatively short period.

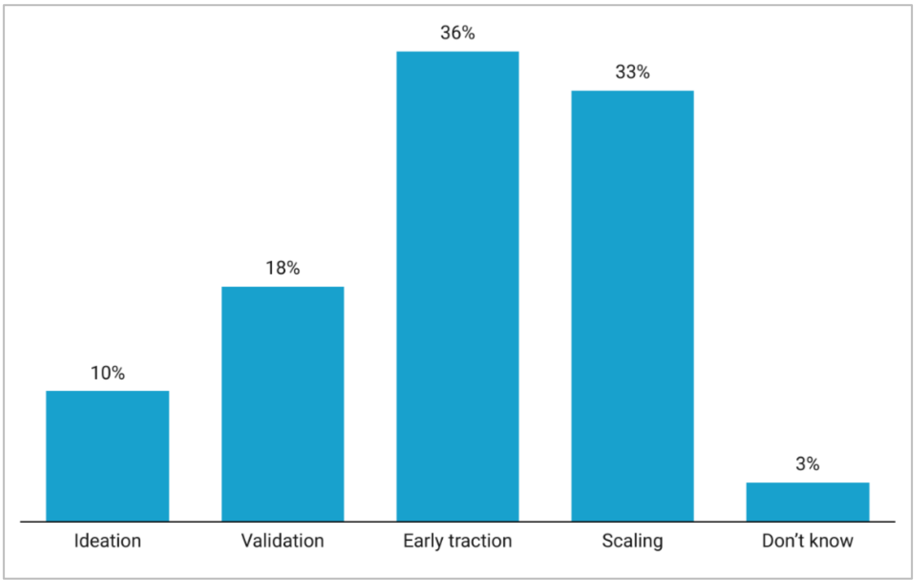


N: All respondents = 422

Figure 3.22: Distribution of start-ups by year of incorporation

3.4.2 Start-up stage

The surveyed start-ups are predominantly in the critical early traction stage of the start-up lifecycle (47 percent), characterised by market launch and initial customer acquisition (Figure 3.23). About a quarter of ventures surveyed have advanced to the scaling stage in the start-up lifecycle, where they pursue accelerated revenue growth while optimising operational efficiency. The remaining start-ups are distributed between the validation stage (18 percent), where product-market fit is being established, and the preliminary ideation stage (10 percent), where concepts are still being formulated. This distribution indicates a healthy representation across all developmental phases, though weighted toward ventures that have already achieved market presence.



N: All respondents = 422

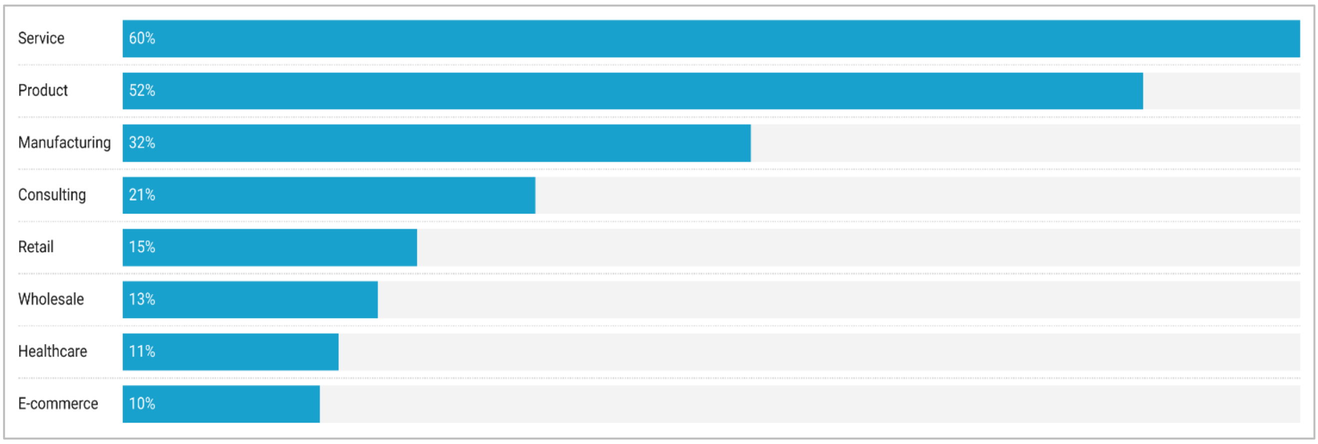
Figure 3.23: Distribution of start-ups by the stage at which it is currently functioning

3.4.3 Type of business and sector

Services (60 percent), product-based businesses (52 percent), and manufacturing (32 percent) represent the primary business categories among surveyed start-ups (Figure 3.22). The leading sectors include information technology (36 percent), healthcare (23 percent), agriculture (21 percent), and food and beverages (20 percent) (Figure 3.25).

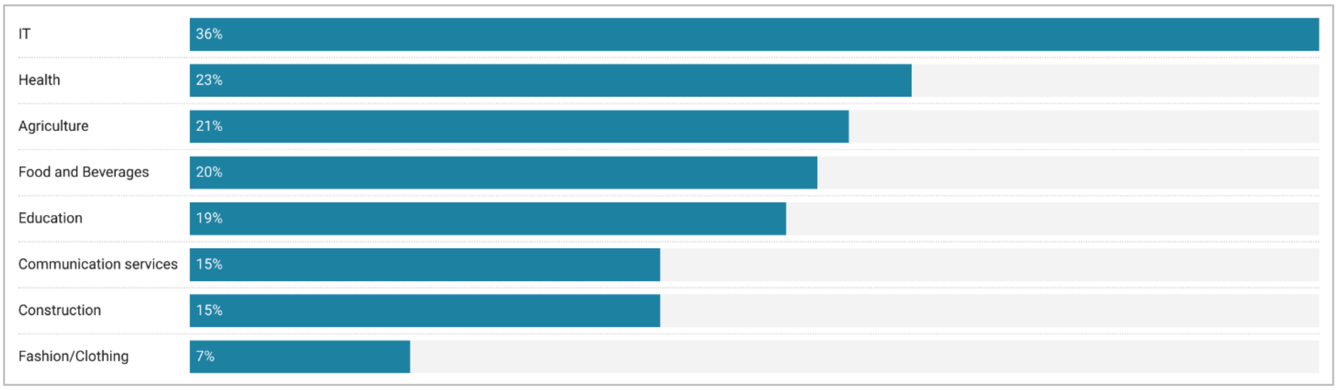
A cross tabulation of start-up businesses by sector (Figure 3.26) suggests that start-up business categories are strongly influenced by sector characteristics, with knowledge-intensive sectors like education, communication services, and construction sectors favouring consulting approaches, while product-oriented sectors like agriculture, food and beverages, and fashion and clothing tend toward manufacturing, retail, or e-commerce models. IT sector start-ups are primarily focused on service and consulting models, suggesting they're offering expertise, solutions, and technical support rather

than software products. Interestingly, health sector start-ups are concentrated in healthcare services, which aligns with the specialised nature of this field.



N: Total = All respondents. Note: Total exceeds 100 percent because many start-ups may fall in more than one business category

Figure 3.24: Distribution of start-ups by type of business



N: Total = All respondents. Note: Total exceeds 100 percent because many start-ups could be classified in more than one sector

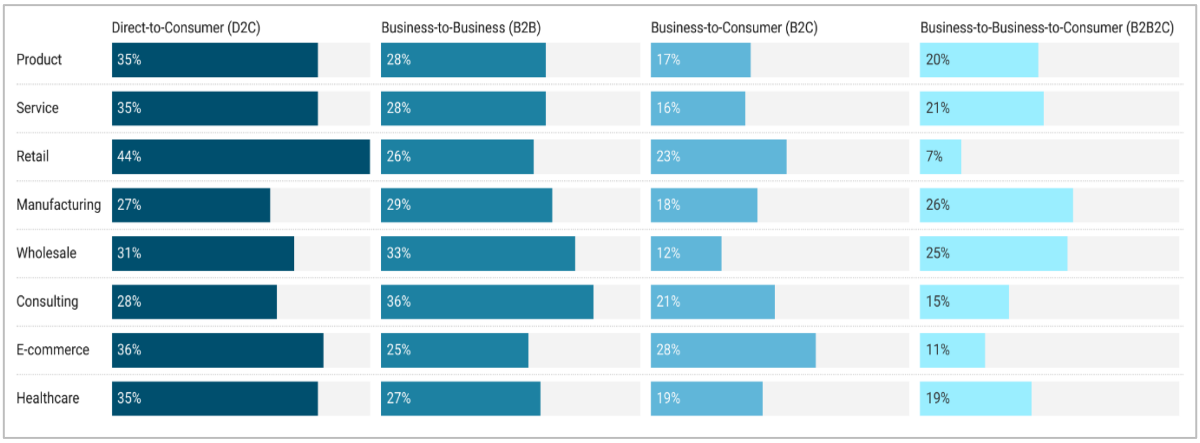
Figure 3.25: Distribution of start-ups by type of sector

N: All respondents = 422. Note: Total exceeds 100 percent because many start-ups may fall in more than one business category

Figure 3.26: Distribution of start-up businesses by sector

3.4.3 Type of business model

Direct-to-Consumer (D2C) represents the dominant business model among surveyed start-ups at 36 percent, followed by Business-to-Business (B2B) at 28 percent. The Business-to-Consumer (B2C) model accounts for 19 percent of start-ups, while Business-to-Business-to-Consumer (B2B2C) makes up the remaining 17 percent. Figure 3.27 illustrates the relationship between business models and business types among surveyed start-ups. Direct-to-Consumer (D2C) models predominate in product-based businesses, services, retail operations, e-commerce platforms, and healthcare start-ups. In contrast, Business-to-Business (B2B) models are the primary approach for start-ups engaged in manufacturing, wholesale distribution, and consulting services.

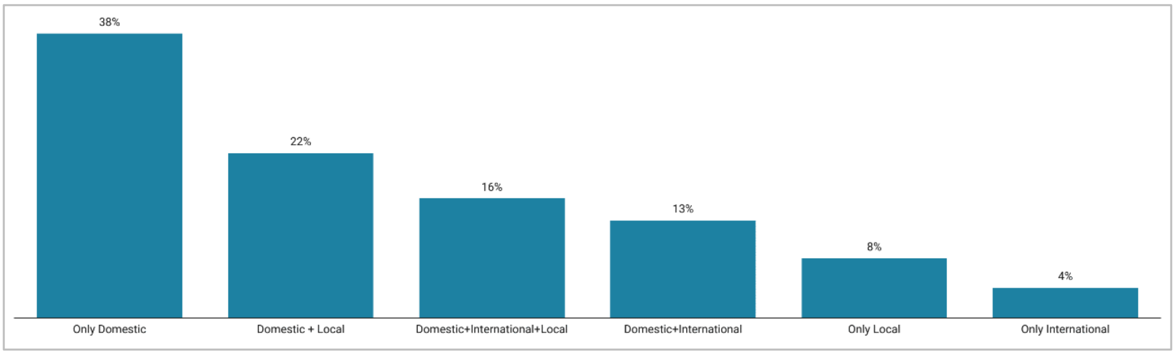


N: All respondents = 422

Figure 3.27: Distribution of start-ups by business models and business types

3.4.4 Type of market

The surveyed start-ups cater to diverse market segments, including domestic, local, and international customers. As presented in Figure 3.28, addressing the opportunities in the country represents the primary focus for most start-ups, with 38 percent exclusively targeting domestic customers. A significant portion (22 percent) serves both domestic and local markets. Only 16 percent of start-ups operate across all three market types - domestic, local, and international.



N: All respondents = 422

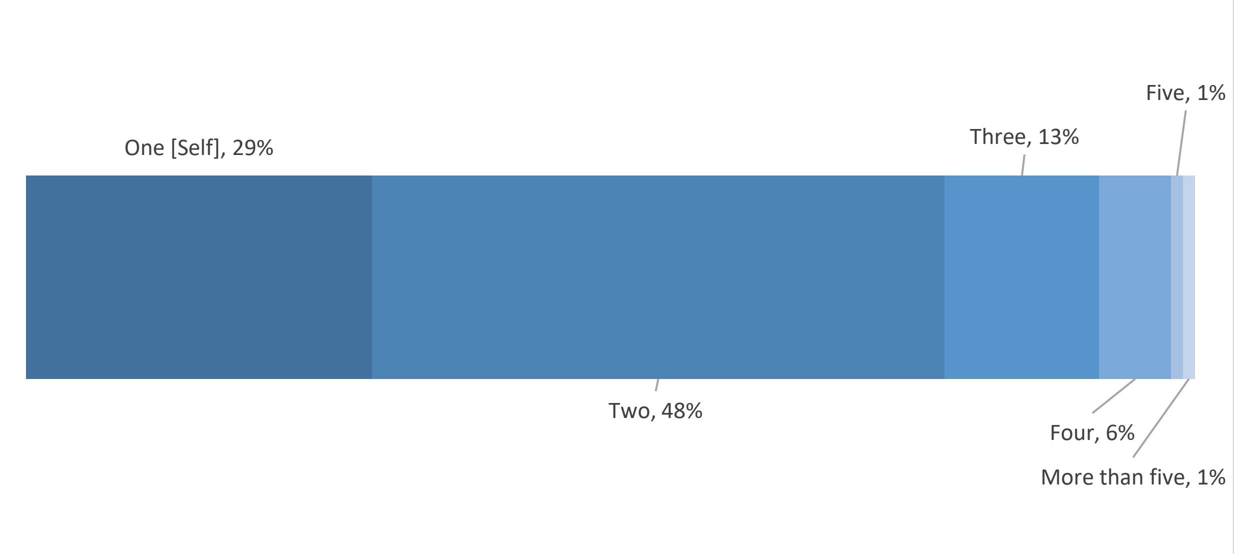
Figure 3.28: Distribution of start-ups by type of market

3.5 Start-up Founding Team

HIGHLIGHTS
▪ Over 75 percent of ventures established by solo entrepreneurs or two-person teams. ▪ Family-based entrepreneurship is particularly significant, with approximately half of ventures including family members as co-founders, potentially leveraging enhanced trust dynamics and communication efficiencies. ▪ Founder demographics reveal promising diversity trends in gender representation and age distribution. However, geographic diversity remains limited. ▪ Professional background diversity strengthens these ventures, as most founders (51 percent) bring valuable experience from previous organisations. ▪ Sixty four percent of the entrepreneurs have responded that they are involved in more than one venture at the time of survey ▪ Thirteen percent of the respondents have embarked on their subsequent ventures despite the failure of their previous venture

3.5.1 Number of founders in the start-up

The majority of surveyed start-ups operate with either two founders (48 percent) or a single founder (29 percent) as presented in Figure 3.29. Start-ups with three founders represent 13 percent of respondents, while those with four founders account for 6 percent. Only 2 percent of start-ups have five or more founders. This indicates that having smaller founding teams is the most commonly observed pattern.



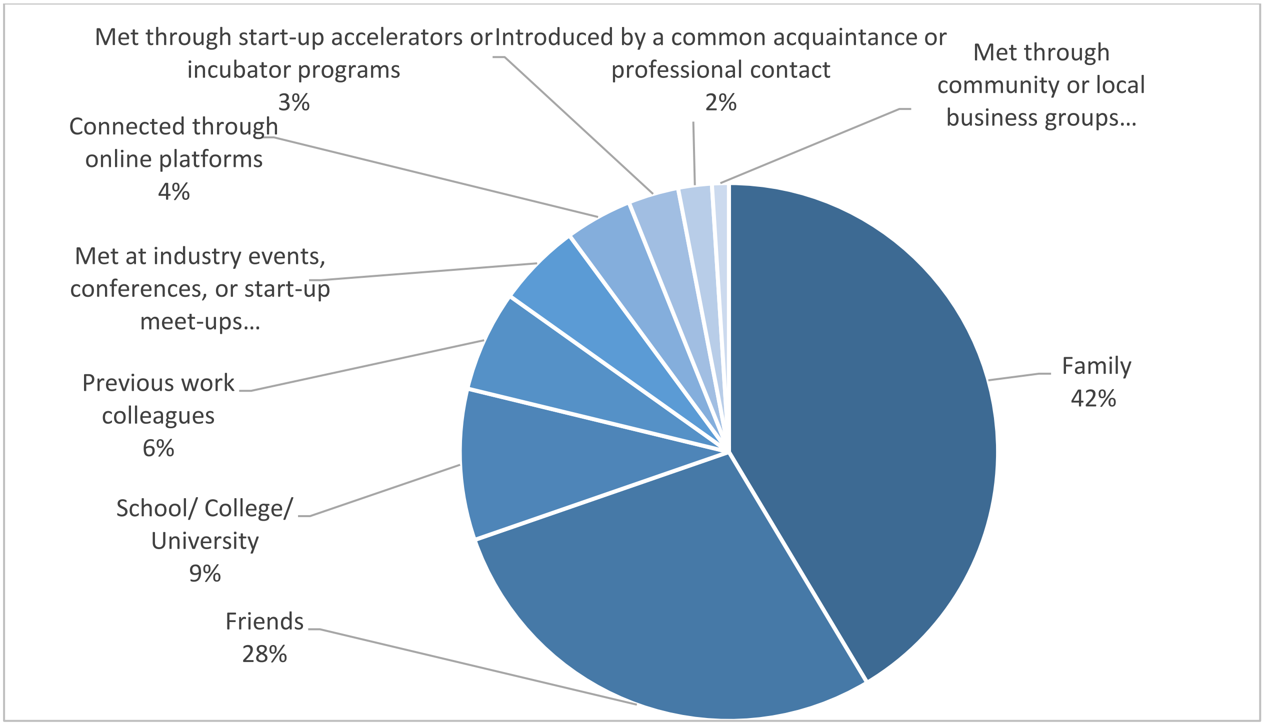
N: All respondents = 422

Figure 3.29: Distribution of start-ups by number of founders

3.5.2 Founders connections

For most respondents, the co-founder is a family member (42 percent), and for over one-fourth (28 percent) it is a friend (Figure 3.30). Entrepreneurs have been leveraging their existing social networks and personal relationships when forming ventures, which can provide built-in trust and understanding between the founders. However, the tendency to partner with family and friends may limit diversity in perspectives, skills, and experiences within founding teams, potentially affecting innovation and problem-solving approaches.

The findings also highlight the dominance of non-familial connections among the founders. Over half, or 58 percent of co-founder relationships are formed through non-kinship connections, with friends representing the largest non-family category at 28 percent, followed by educational networks (9 percent), workplace connections (6 percent), and industry or professional networks (13 percent combined). This significant reliance on non-kinship ties suggests that while family remains the primary source of co-founder partnerships, Tamil Nadu entrepreneurs are actively leveraging diverse social and professional networks to build their founding teams.



N: Start-ups with more than one founder = 298

Figure 3.30: Distribution start-ups by type of founders' connection

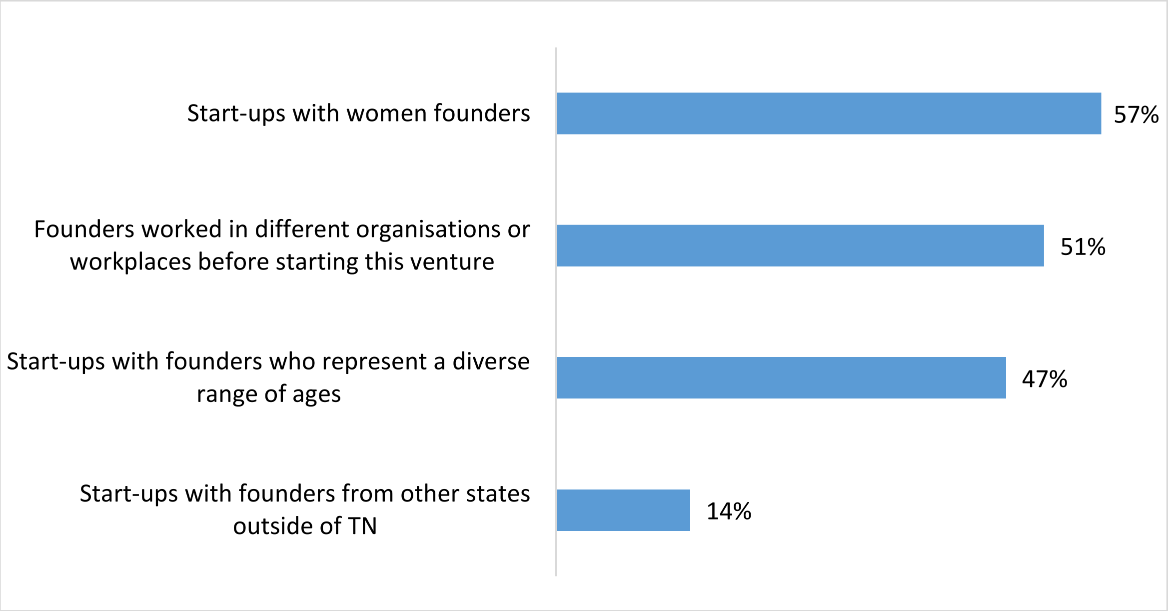
3.5.3 Founders diversity

Figure 3.31 shows diversity patterns among start-up founders. Women represent a majority (57 percent) of founders, signalling a positive trend toward gender balance in the entrepreneurial ecosystem.

Most founders (51 percent) bring valuable professional experience from previous organisations, equipping them with industry knowledge, professional networks, and resilience necessary for navigating market challenges and ecosystem complexities.

Age diversity appears as another strength, with nearly half (47 percent) of start-ups reporting founders having significant age differences between them. This multi-generational approach combines the innovative thinking of younger entrepreneurs with the seasoned judgment of experienced professionals, potentially enhancing problem-solving capabilities and market understanding.

Geographic diversity remains limited, with only 14 percent of start-ups reporting founders from other states.



N: Start-ups with more than one founder = 298

Figure 3.31: Distribution of start-ups by founders' diversity patterns

3.4.4 Prior venture

Survey data indicates that 13 percent of respondents have entrepreneurial experience beyond their current venture, demonstrating patterns of serial entrepreneurship (Figure 3.32). Among these experienced founders, the majority maintain active ventures simultaneously (64 percent), while 21 percent reported having inactive ventures in their portfolio.

Despite previous venture failure, 13 percent of entrepreneurs have started subsequent ventures, demonstrating resilience and the ability to transform setbacks into learning opportunities.

The reported causes of previous venture failure encompass a spectrum of internal and external factors, with some prominent challenges arising as a result of

- Performance gaps between expectations and outcomes (14 percent)
- COVID-19 pandemic disruptions (14 percent)
- Financial sustainability issues (14 percent)
- Limited scalability of business models (14 percent)
- Inadequacies in marketing execution and financial management (14 percent)
- Partnership complications (14 percent)
- Market timing misalignment (premature market entry) (14 percent)

These failure factors highlight the multifaceted challenges entrepreneurs navigate and the valuable experiential learning that informs subsequent ventures.

N: Respondents who have launched any start-ups before the current venture = 53

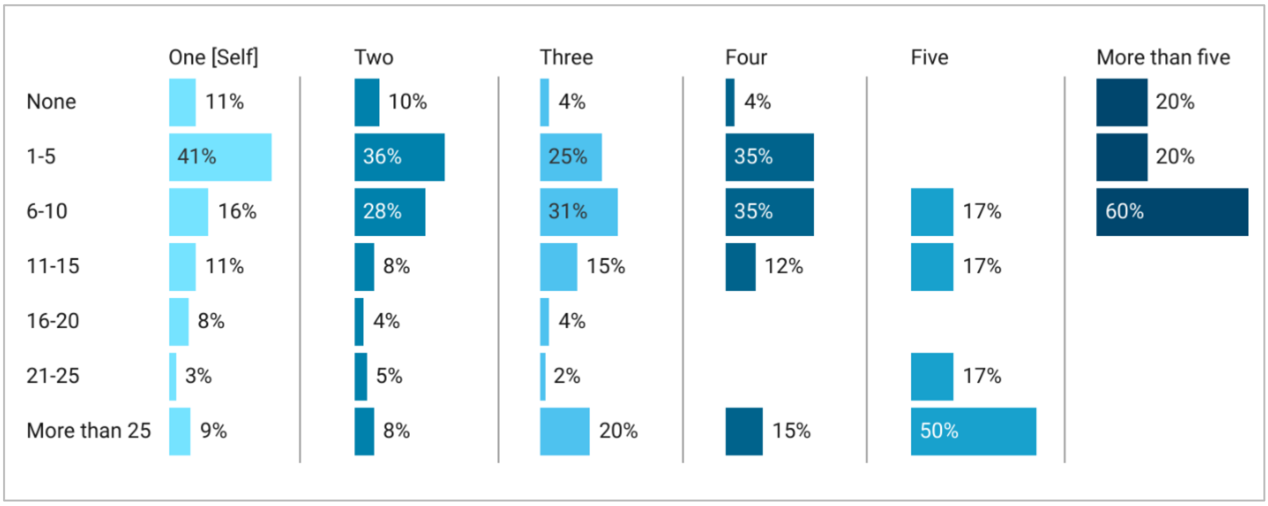
Figure 3.32: Distribution of respondents by status of the venture

3.6 Profile of Start-up Employees

HIGHLIGHTS
▪ A significant number of start-ups operate without any female employees, highlighting ongoing gender representation issues within the start-up landscape. For those that do employ women, the preference remains for small female teams of 1–5 members. ▪ The workforce in surveyed start-ups is predominantly young, with an average employee age of 26–30. ▪ Start-ups without female employees are more likely to include entry-level workers aged 18–25, suggesting a potential connection between workforce gender diversity and life stage dynamics.

3.6.1 Number of employees

Most start-ups were small, with an employee strength of around 1-5 employees (Figure 3.33).

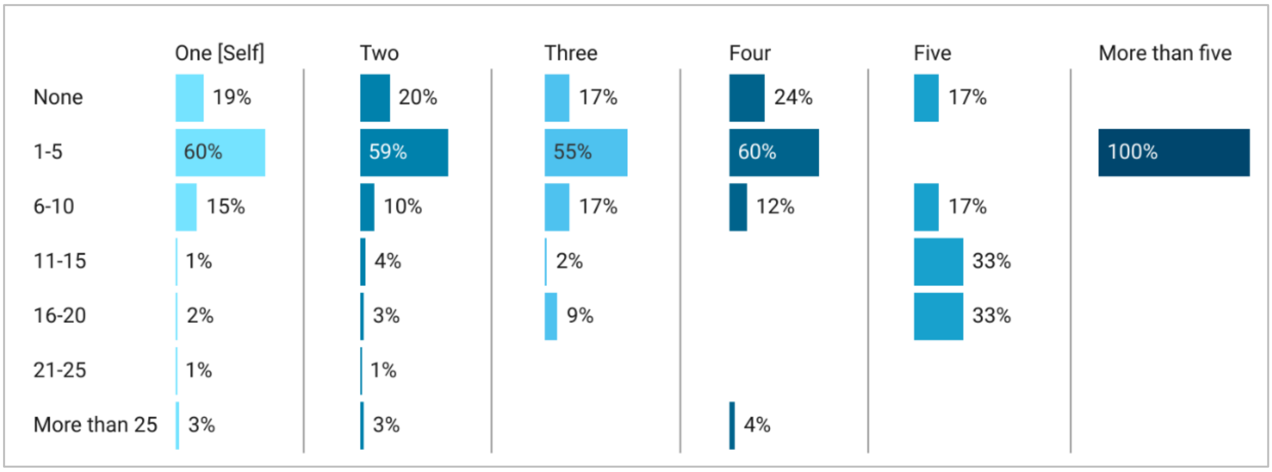


N: All respondents = 422

Figure 3.33: Distribution of employees by founding member sizes

Figure 3.34 shows that a significant portion of start-ups operate without any women employees, indicating persistent gender representation gaps within the start-up ecosystem. Among start-ups that do employ women, a consistent preference for small female team contingents (1-5 women employees) was observed.

This limited female workforce integration stands in contrast to the relatively high representation of women founders (57 percent) noted in Figure 3.31. The findings highlight the challenges that start-ups face in attracting and retaining women employees.

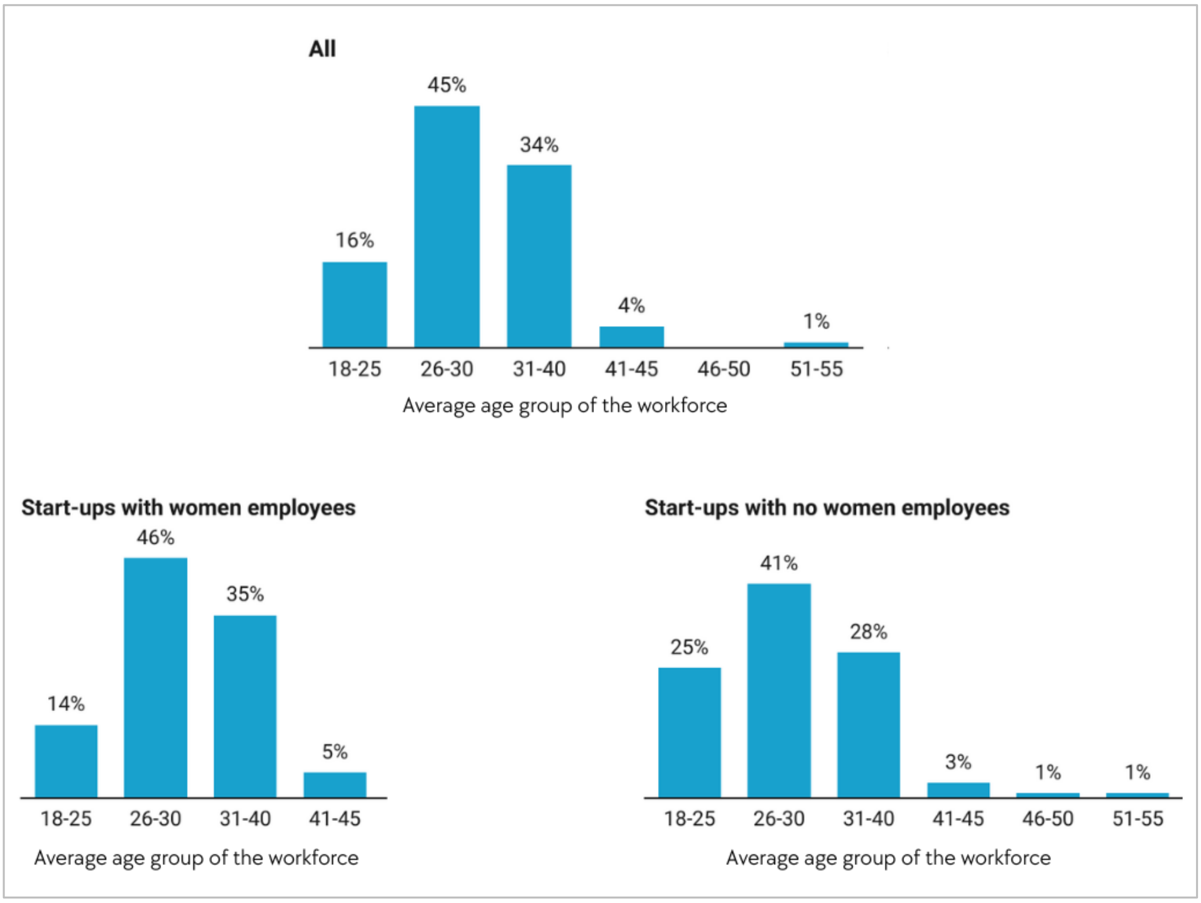


N: All respondents = 422

Figure 3.34: Distribution of women employees by founding member sizes

The surveyed start-ups demonstrate a predominantly young workforce profile, with 45 percent maintaining average employee ages of 26-30 years and 34 percent employing primarily individuals aged 31-40 (Refer Figure 3.35). This youthful composition aligns with typical start-up demographic patterns, favouring early-to-mid-career professionals.

When analysing start-ups through the lens of gender composition, those with female employees demonstrate stronger concentration in the 26-30 age bracket (46 percent). By contrast, start-ups without female employees show more significant inclusion of entry-level workers aged 18-25 (25 percent compared to just 14 percent in gender-diverse companies).



N: Start-up with one or more employees = 384

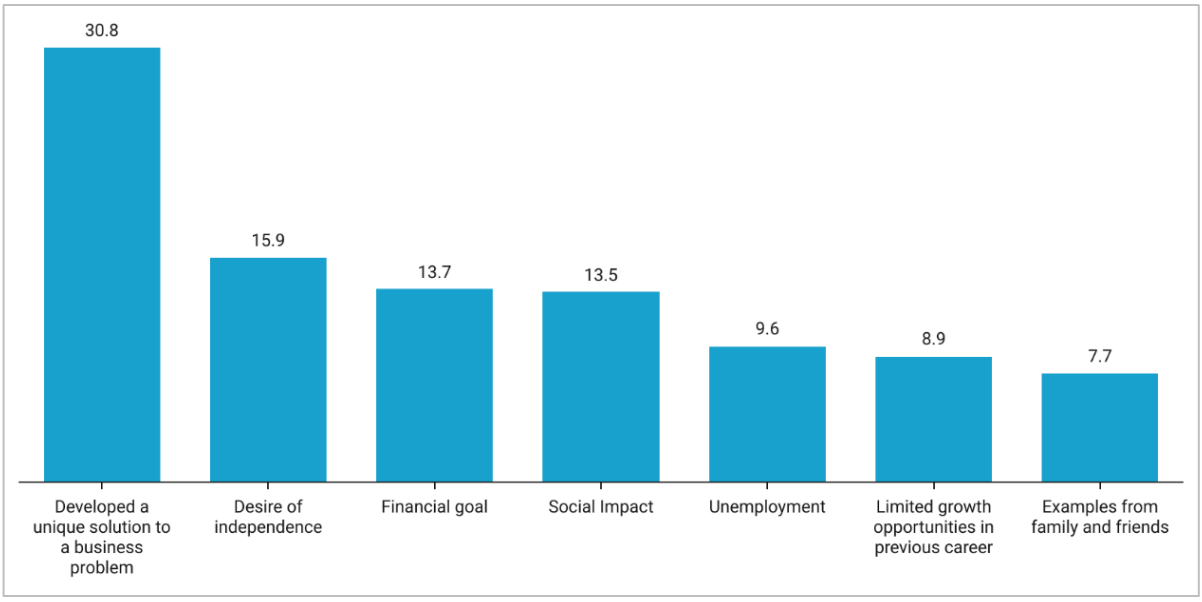
Figure 3.35: Distribution of employees by average age group

3.7 Motivation to launch a start-up

HIGHLIGHTS
▪ Problem-solving emerges as the key motivator for entrepreneurs, with the goal of "developing a unique solution to a business problem" reflecting their focus on identifying and addressing market gaps. ▪ Notably, social impact stands out as the most significant gender-based difference in motivation, with female entrepreneurs placing much greater emphasis on this factor.

Results showed that problem-solving emerges as the dominant motivator, with "developing a unique solution to a business problem" receiving the highest mean score of 30.8 (Figure 3.36). This innovation-driven approach significantly outweighs all other factors, reflecting the entrepreneurial orientation toward market gap identification and resolution. Autonomy represents the second most powerful driver, with "desire for independence" getting an average score of 15.9. This motivation's prominence is particularly meaningful considering 69 percent of respondents reported prior work experience (Section 3.2), suggesting entrepreneurship often serves as a pathway from organisational employment to self-direction.

Financial objectives (mean score: 13.7) and social impact creation (mean score: 13.5) occupied the next two ranks of entrepreneurial motivations. Other factors, such as unemployment, limited career growth opportunities, and entrepreneurial role modelling from family and friends, had all received lower mean scores, indicating that these reactive or external influences have not been strong motivations for founders to start their venture.



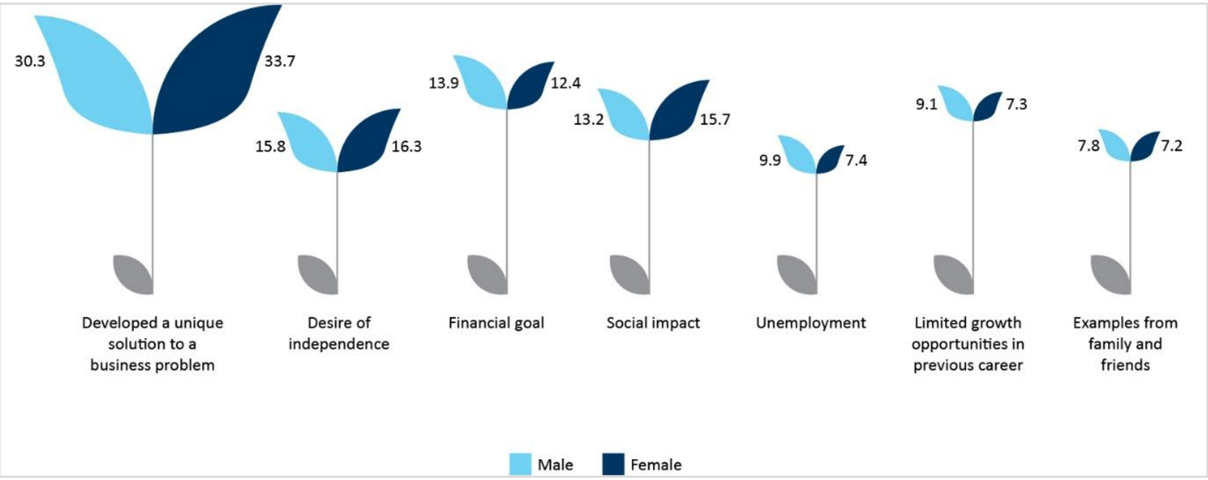
N: All respondents = 422

Figure 3.36: Motivation to launch a start-up - Mean scores

Examination of motivational factors by gender reveals both shared priorities and subtle differentials in entrepreneurial drivers (Figure 3.37). Problem-solving emerges as the primary motivation across genders, with similar scores for female (mean score 33.7) and male founders (mean score 33.3). The autonomy driver similarly demonstrates a modest gender variation, with women entrepreneurs reporting marginally higher motivation from "desire for independence" (mean score 16.3) than their male counterparts (mean score 15.8). We, however, believe that there could be a nuanced meaning to independence, with women respondents meaning “financial independence” whereas men would have meant “autonomy and freedom” to work on problems that they choose to work on.

Most notably, social impact motivation displays the most significant gender differential, with women entrepreneurs assigning greater importance to this factor (mean score 15.7) compared to male entrepreneurs (mean score 13.2). This 2.5-point difference suggests that women founders more frequently integrate social value creation into their entrepreneurial vision.

These nuanced motivational variations indicate that while core entrepreneurial drivers remain consistent across genders, the relative strength of these motivations slightly differs between men and women.



N: All respondents = 422

Figure 3.37: Motivation to launch a start-up by gender - Mean scores

The qualitative responses shared by founders during the focus group discussions on their motivations to start a venture are given in Figure 3.38.

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

3.8 Summary

The chapter offers an in-depth analysis of the Tamil Nadu start-up ecosystem, examining founder characteristics, venture profiles, and motivations. Key findings indicate that women entrepreneurs typically launch ventures earlier (26-30) than men (31-35), though men often have more experience at the time of incorporation. The majority of founders belong to the higher SEC A category, reflecting greater access to social capital and educational advantages. Educational attainment is remarkably high, with women demonstrating higher rates of master's degree completion and academic performance. Engineering consistently ranks as the preferred college discipline for founders, with government-funded institutions being the primary choice for higher education.

Nearly two-thirds of the surveyed start-ups were incorporated in 2021 or later, demonstrating the significant impact of government policy and StartupTN's initiatives. Ventures are predominantly in the early traction stage. Services, product-based businesses, and manufacturing are the primary business types, with Information Technology, Healthcare, Agriculture, and Food and Beverages emerging as leading sectors. The Direct-to-Consumer (D2C) model is dominant, primarily serving the domestic market.

Most founding teams are small, consisting of one or two individuals, often leveraging connections with family (42 percent) or friends (28 percent). Women represent a majority (57 percent) of founders, and most (51 percent) bring prior professional experience. Notably, 13 percent of entrepreneurs have launched subsequent ventures despite previous failures, showcasing resilience. While the workforce is typically young (average 26-30), a significant number of start-ups operate without any female employees. Problem-solving is the key motivator for entrepreneurs, with social impact being a significantly stronger driver for women founders.

MOTIVATION TO LAUNCH A START-UP

PERSONAL FREEDOM & PROBLEM-SOLVING

Desire for Independence and Autonomy

As pathways to break from rigid corporate structures and achieve creative freedom while pursuing meaningful goals.

Solving Unaddressed Problems

Desire to tackle inefficiencies and overlooked challenges across sectors such as health, agriculture, and cybersecurity

"The main reason I started was the sense of freedom it offered."

"I always wanted to be an entrepreneur, even during my corporate job in an MNC."

"I had witnessed wastage of cashew fruits for 200 years; emotional drive to create value."

"Saw doctors proudly using scrapped imported equipment. I wanted to make affordable, quality devices here."

REGIONAL AND SOCIAL COMMITMENT

Regional and Cultural Affinity

Strong emotional and cultural ties to native places inspired founders to return or stay in their hometowns, contributing to regional development.

Desire for Social Impact

Social responsibility was a major driver, particularly among female founders, who aimed to address rural employment, education, and sustainability.

"Tamil Nadu's richness in culture and traditions aligned with my brand vision."

"Vellore is my native, I wanted to uplift the society."

"I wanted to help the rural youth connect to employment."

"I was frustrated with rigid school curriculum, hence wanted to drive education innovation."

LEVERAGE SECTOR AND MARKET KNOWLEDGE

Learning from Global Exposure

Entrepreneurs drew strategic lessons from past failures and international experiences, strengthening resilience and adaptability.

Sector-Specific Passion and Innovation

Start-ups were driven by founders' deep interest in fields such as EVs, fintech, agritech, and education, where they aimed to bring unique innovations.

"In Norway and Spain, starting a company was tough due to regulations and language barriers, so I came back and started here."

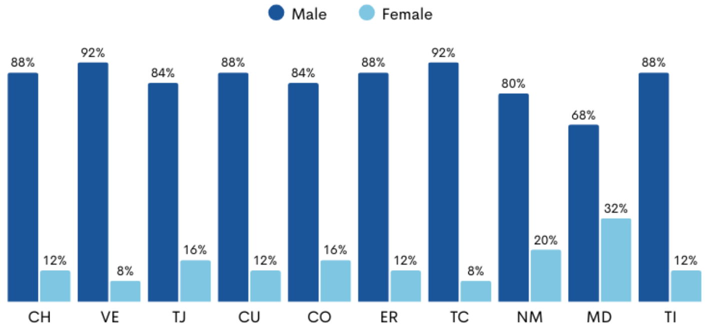
"Building a fintech platform for micro-lending to solve month-end financial stress came from my personal experience."

"My passion for chess, lack of access and affordability in delta region."

Figure 3.38: Qualitative findings on motivation to launch a start-up

RESPONDENTS' PROFILE

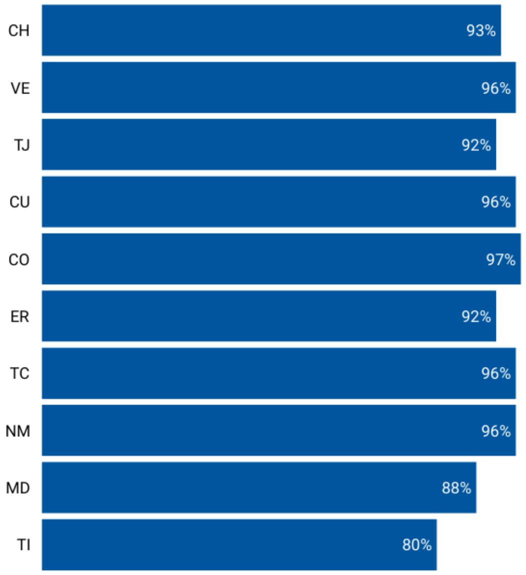
RESPONDENTS' GENDER



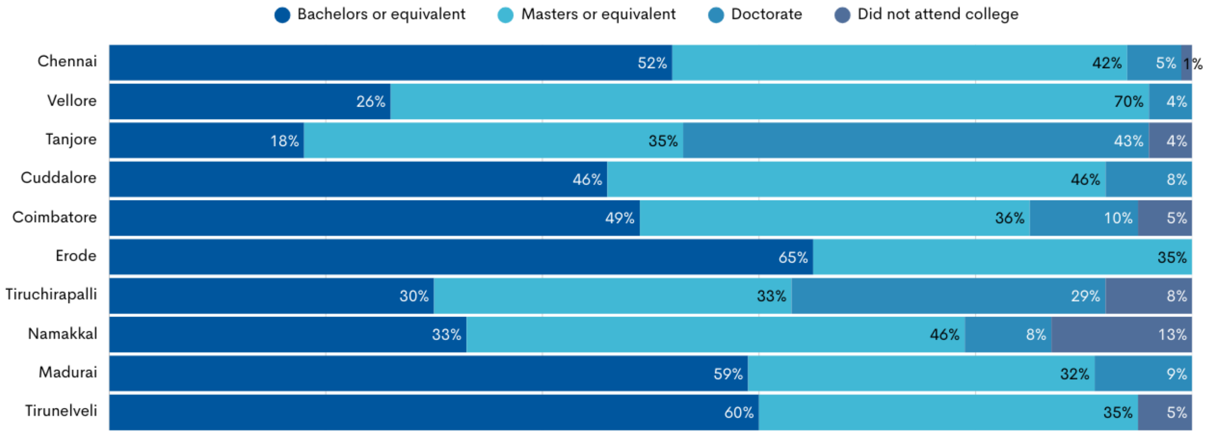
Age	CH	VE	TJ	CU	CO	ER	TC	NM	MD	TI
Completed average age	41	35	39	41	38	35	35	34	36	36
Average age at the time of incorporation	36	33	36	38	35	32	34	32	32	33

HIGHEST LEVEL OF SCHOOL EDUCATION

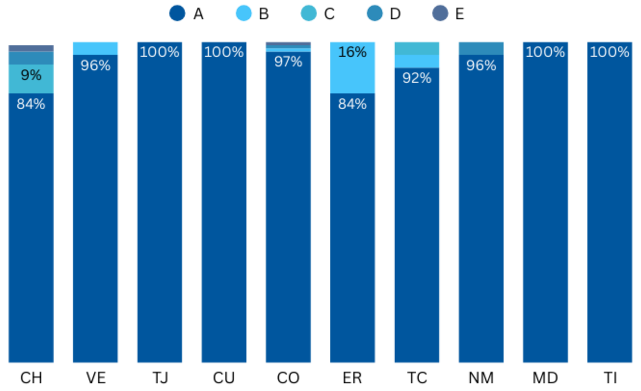
Higher Secondary (11th to 12th Grade)



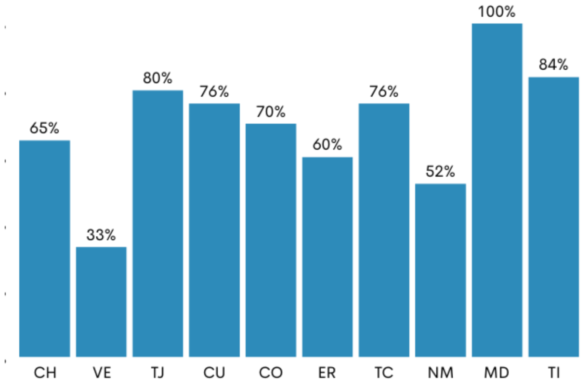
HIGHEST LEVEL OF COLLEGE EDUCATION



SOCIO-ECONOMIC CLASSIFICATION



PRIOR WORK EXPERIENCE

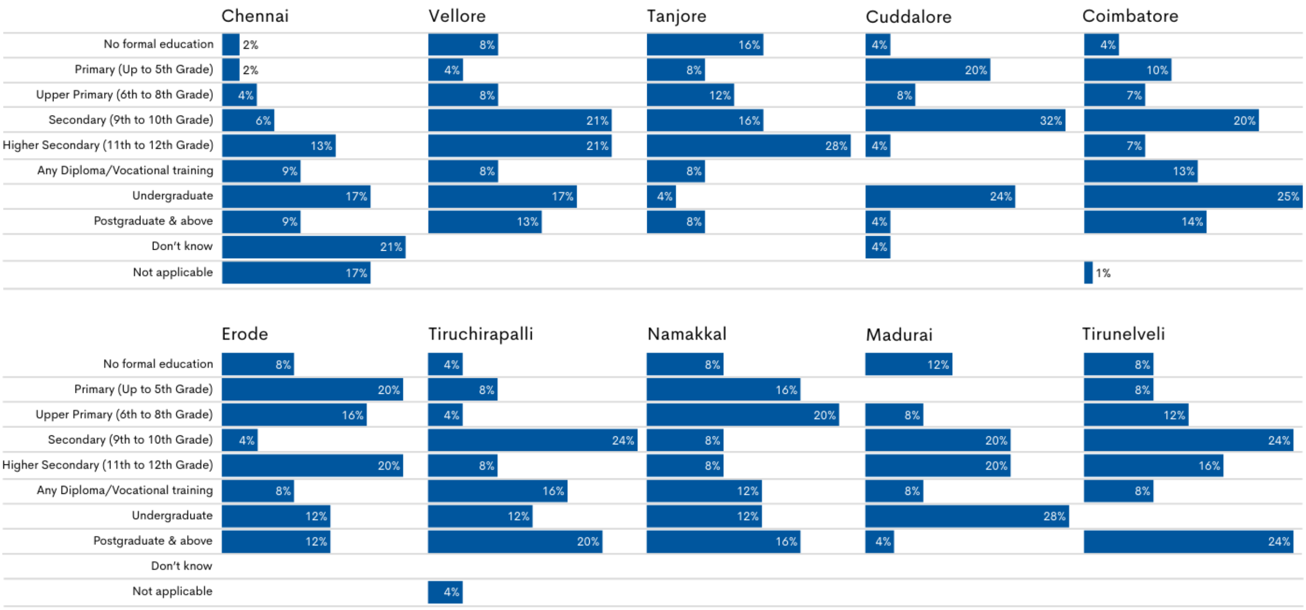


CH: Chennai, VE: Vellore, TJ: Thanjavur, CU: Cuddalore, CO: Coimbatore, ER: Erode, TC: Tiruchirapalli, NM: Namakkal, MD: Madurai, TI: Tirunelveli

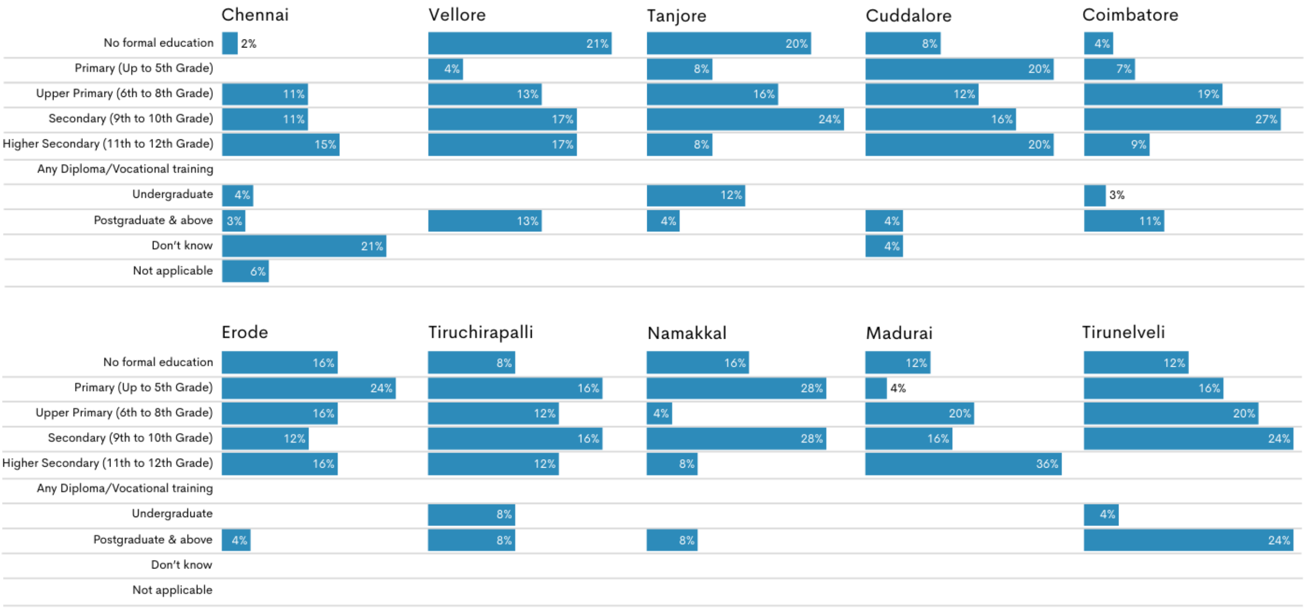
REGIONAL TRENDS

PARENT'S EDUCATION

FATHER'S HIGHEST LEVEL OF EDUCATION

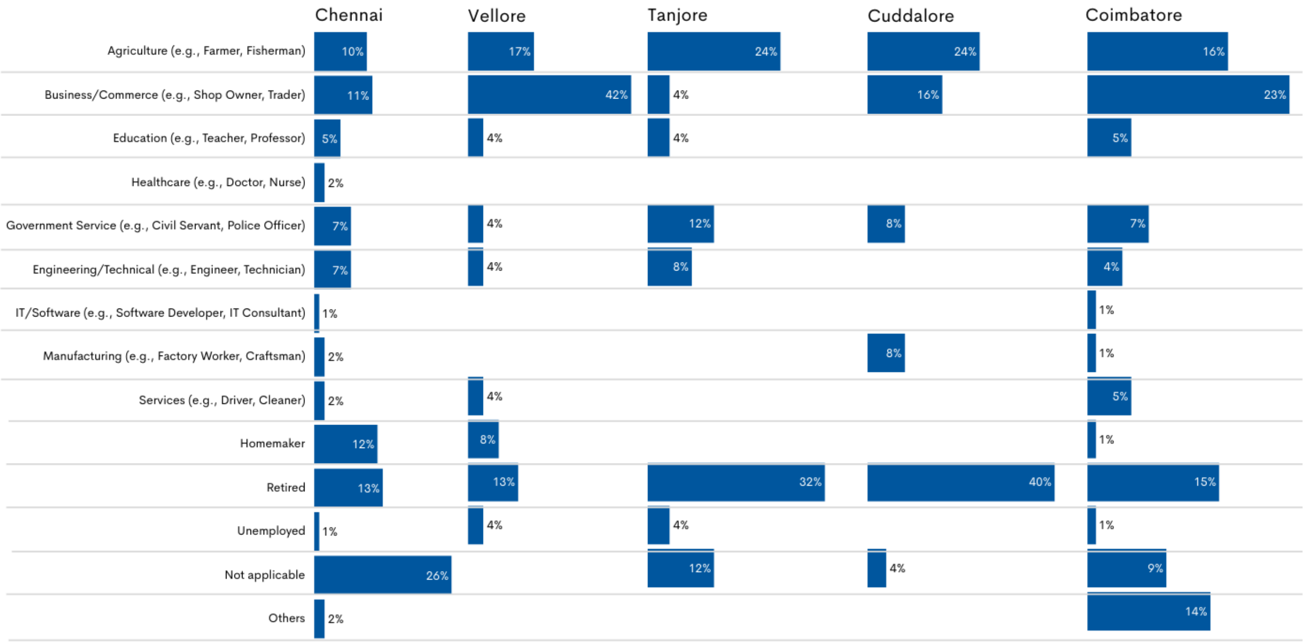


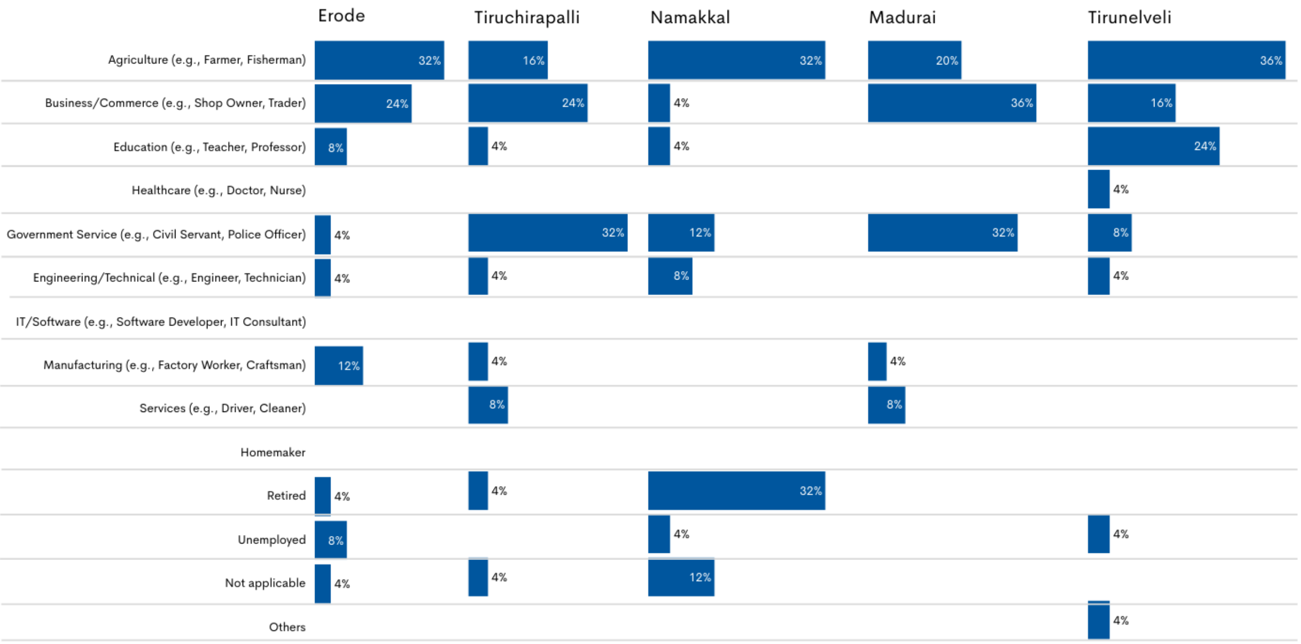
MOTHER'S HIGHEST LEVEL OF EDUCATION



REGIONAL TRENDS

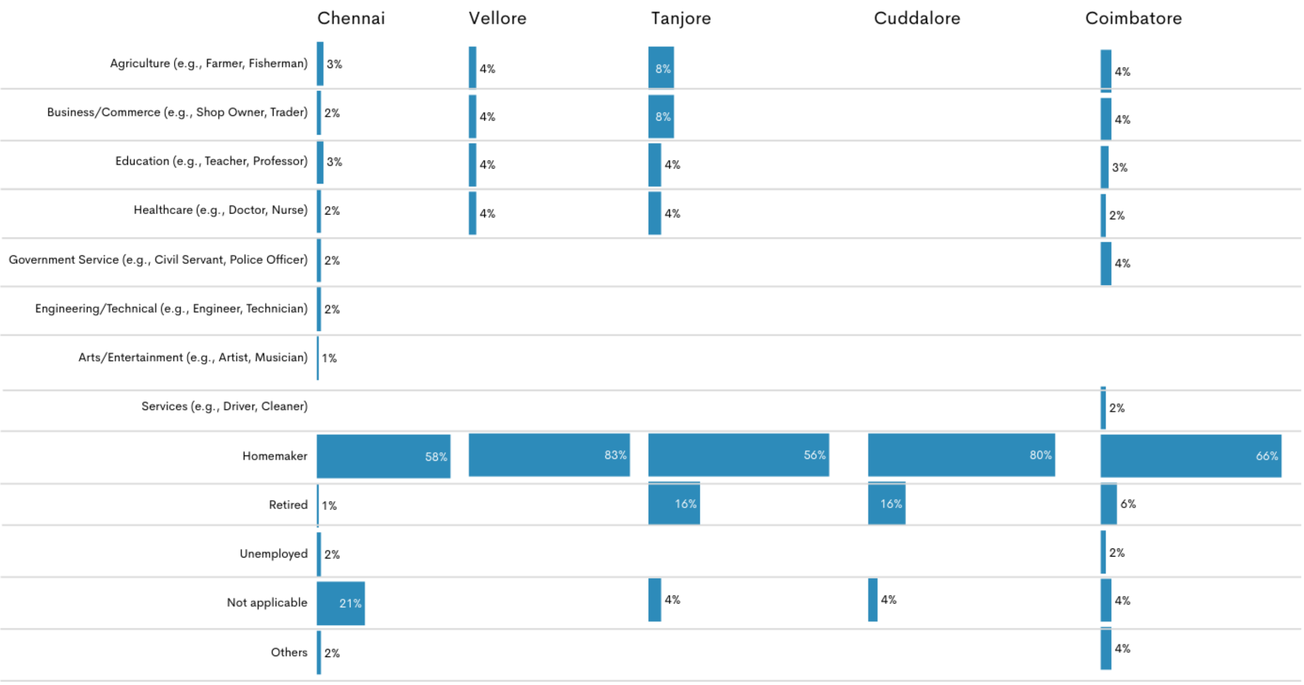
FATHER’S OCCUPATION

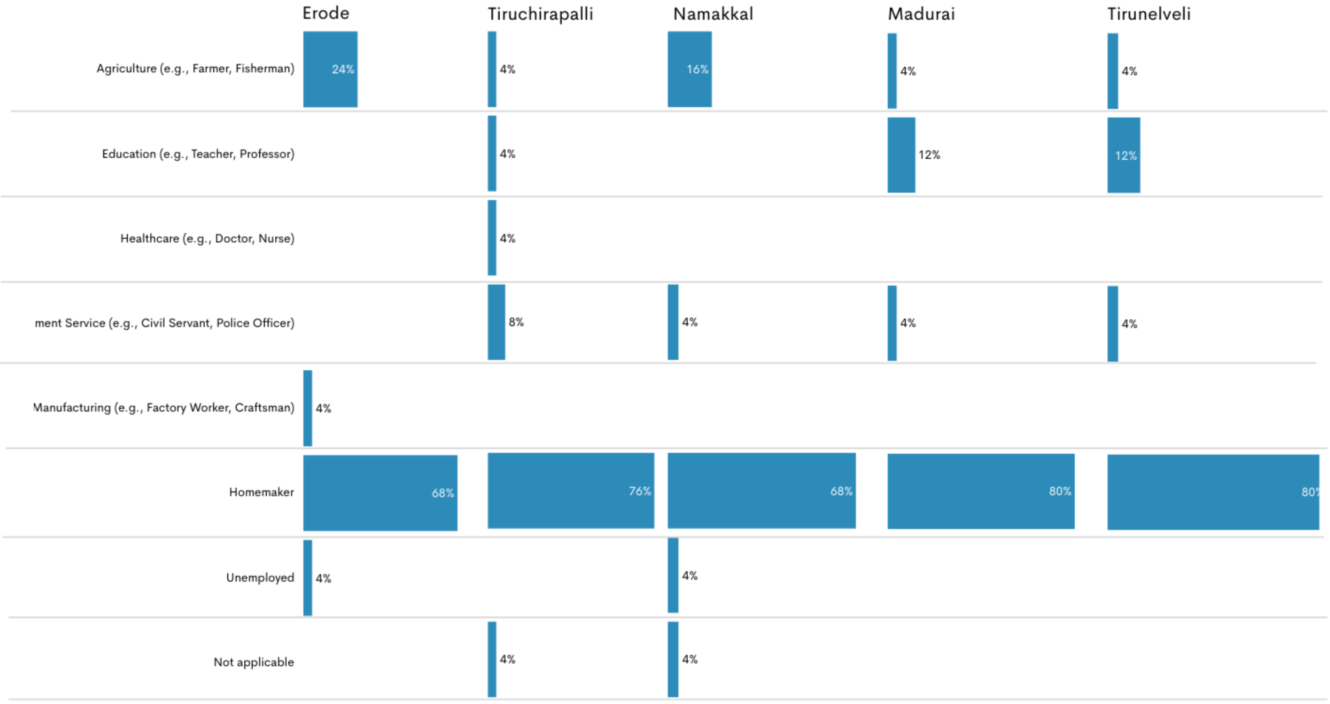




REGIONAL TRENDS

MOTHER'S OCCUPATION

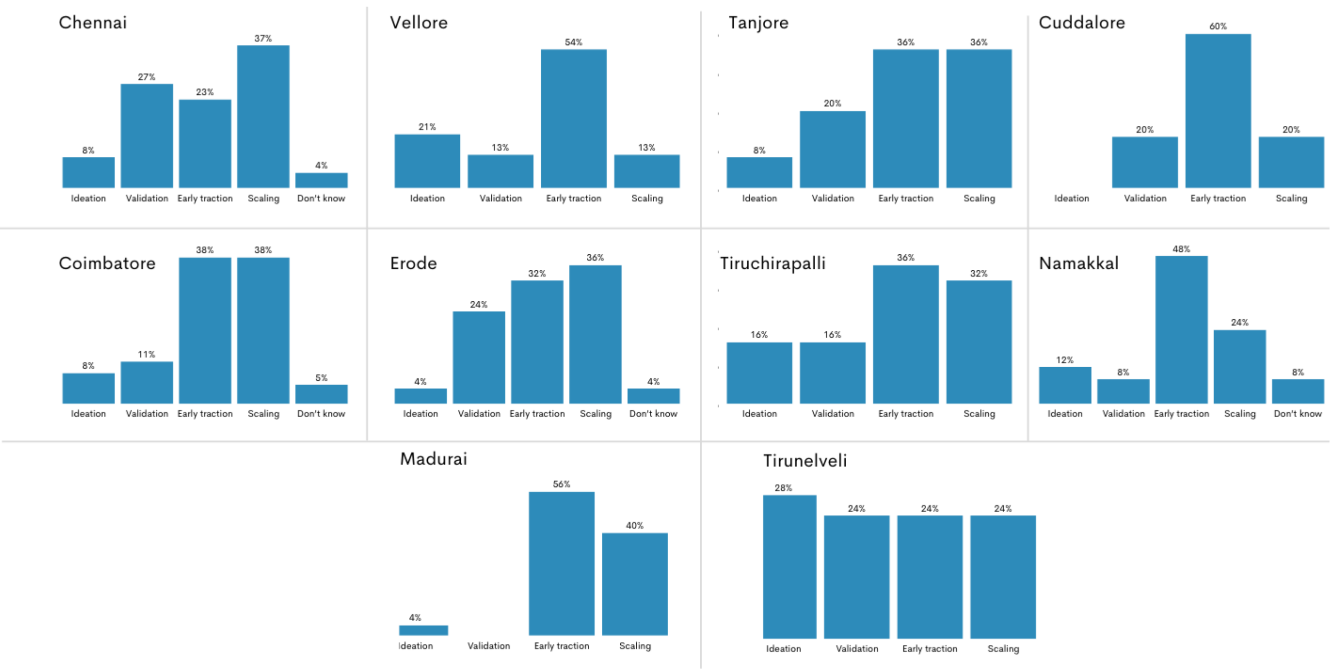




START-UPS' PROFILE

YEAR OF INCORPORATION

STAGES OF START-UP GROWTH



REGIONAL TRENDS

START-UPS' PROFILE

TYPE OF BUSINESS

Business type	CH	VE	TJ	CU	CO	ER	TC	NM	MD	TI
Product	65%	17%	52%	20%	45%	40%	32%	36%	68%	44%
Service	45%	79%	72%	60%	56%	52%	56%	56%	64%	80%
Retail	17%	21%	12%	28%	8%	20%	8%	8%	12%	8%
Manufacturing	26%	17%	36%	32%	42%	36%	48%	28%	32%	32%
Wholesale	7%	8%	16%	44%	9%	12%	8%	24%	16%	12%
Consulting	13%	42%	20%	36%	13%	20%	12%	16%	40%	24%
E-Commerce	10%	4%	4%	16%	8%	28%	-	4%	-	8%
Healthcare	5%	21%	16%	12%	7%	12%	4%	4%	12%	16%

Note: Total exceeds 100 percent due to multiple responses

TYPE OF SECTOR

Sector type	CH	VE	TJ	CU	CO	ER	TC	NM	MD	TI
IT	32%	17%	28%	4%	33%	12%	20%	24%	52%	32%
Health	19%	38%	28%	8%	17%	12%	16%	12%	8%	20%
Education	20%	21%	12%	4%	19%	4%	24%	12%	4%	8%
Agriculture	16%	4%	28%	16%	11%	24%	24%	20%	12%	24%
Communication Services	15%	38%	12%	12%	7%	12%	4%	8%	-	12%
Construction	12%	46%	16%	12%	9%	8%	4%	-	4%	16%
Food and Beverages	12%	13%	16%	32%	16%	16%	8%	20%	16%	16%
Fashion/Clothing	5%	-	8%	4%	5%	16%	-	12%	-	12%

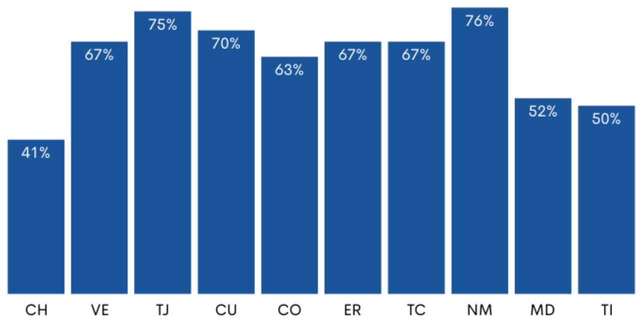
Note: Total exceeds 100 percent due to multiple responses

CH: Chennai, VE: Vellore, TJ: Thanjavur, CU: Cuddalore, CO: Coimbatore, ER: Erode, TC: Tiruchirapalli, NM: Namakkal, MD: Madurai, TI: Tirunelveli

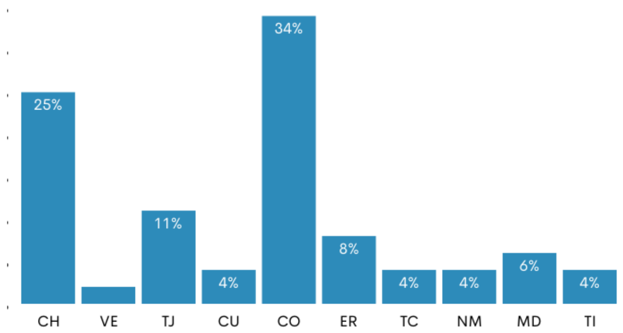
REGIONAL TRENDS

FOUNDERS' PROFILE

WOMEN FOUNDERS



PRIOR VENTURE



FOUNDERS AFFILIATION

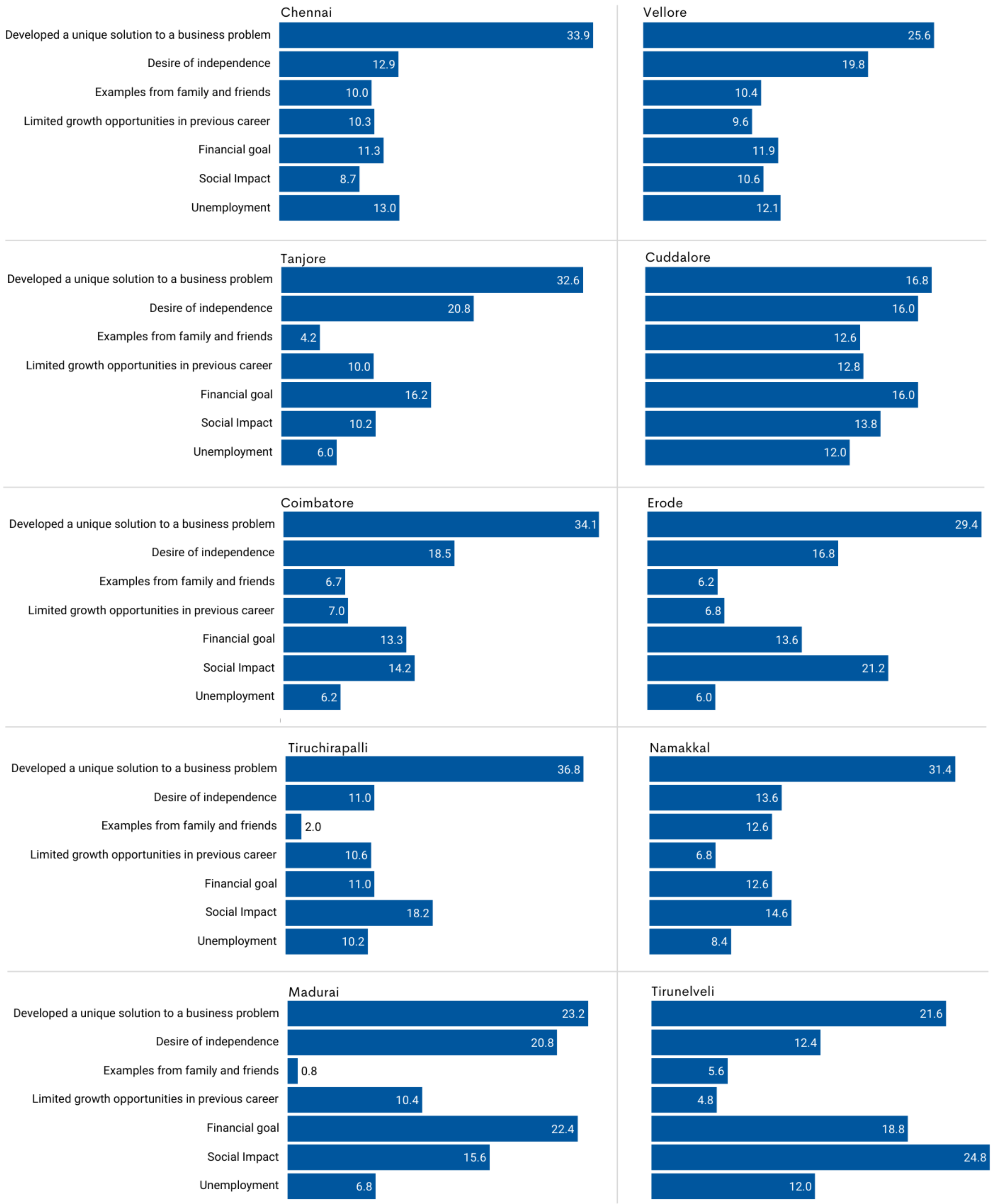
Affiliation	CH	VE	TJ	CU	CO	ER	TC	NM	MD	TI
Friends	67%	33%	25%	-	37%	33%	33%	24%	22%	35%
Family	56%	67%	75%	100%	52%	67%	63%	59%	74%	65%
School/College/University	24%	33%	6%	-	11%	17%	13%	12%	4%	-
Previous work colleagues	14%	-	6%	-	12%	6%	8%	12%	-	-
Met at industry events, conferences, or start-up meet-ups	19%	33%	-	-	6%	-	-	12%	-	-
Connected through online platforms	14%	-	-	-	4%	6%	-	-	-	5%
Met through start-up accelerators or incubator programs	14%	-	-	-	1%	-	-	-	-	-
Introduced by a common acquaintance or professional contact	2%	-	-	-	7%	-	4%	6%	-	5%
Met through community or local business groups	-	-	6%	-	5%	-	-	6%	-	-

Note: Total exceeds 100 percent due to multiple responses

CH: Chennai, VE: Vellore, TJ: Thanjavur, CU: Cuddalore, CO: Coimbatore, ER: Erode, TC: Tiruchirapalli, NM: Namakkal, MD: Madurai, TI: Tirunelveli

REGIONAL TRENDS

MOTIVATION TO START A VENTURE – MEAN SCORES



Chapter 4

Support System

கற்கக் கசடறக் கற்பவை கற்றபின்
நிற்க அதற்குத் தக (Tirukkural 391)

Learn thoroughly what is worth learning, and then live by it.

This chapter examines the extent to which surveyed start-ups have access to support systems like incubators, networking and mentorship. Through a comprehensive survey and qualitative data, we analyse how start-ups access and utilise incubation opportunities across the region. The findings illuminate both the selection challenges start-ups face when seeking incubation support and the specific benefits they derive from successful participation. The chapter presents the findings by three main topics - opportunities, challenges and areas for improvement. In addition to the findings on incubators, this chapter also presents relevant survey and qualitative data on networking and mentorship.

Based on these insights, targeted recommendations are provided to enhance the effectiveness and accessibility of the start-up support system, to foster greater entrepreneurial success throughout Tamil Nadu.

4.1 Incubators

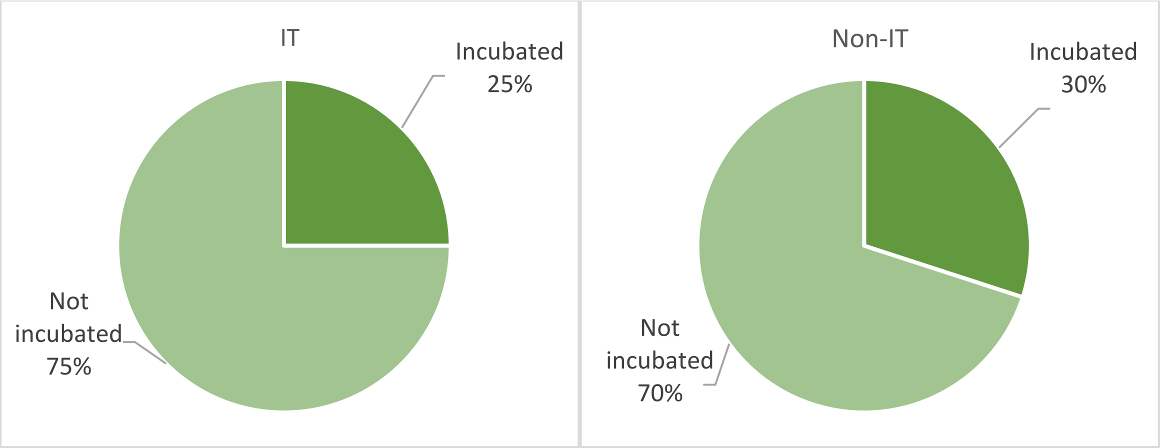
4.1.1 Opportunities accessed

HIGHLIGHTS
▪ Start-up incubation engagement shows moderate adoption, with 30 percent of surveyed start-ups having utilised incubation services during their development. ▪ Non-IT sector start-ups display higher incubation participation rates compared to their IT counterparts. ▪ Incubation utilisation correlates with start-up maturity, with more developed start-ups showing increased engagement with incubation services. ▪ The peak period for incubation participation occurs during the early growth phase (1-4 years post-incorporation), with participation rates declining in later stages. ▪ Academic institutions anchor Tamil Nadu's incubator ecosystem, hosting the state's highest concentration of incubation facilities. ▪ Non-IT start-ups prefer State Government Universities and non-academic incubators more than IT start-ups do. ▪ Incubators primarily function as funding and networking hubs rather than comprehensive support centers, with financial support (83 percent) and networking opportunities (82 percent) as their top services.

4.1.1.1 Access to incubation support

Access to incubators among the surveyed start-ups was observed to be moderate, with 30 percent having been incubated at some point, suggesting that most start-ups (70 percent) are developing without formal incubation support.

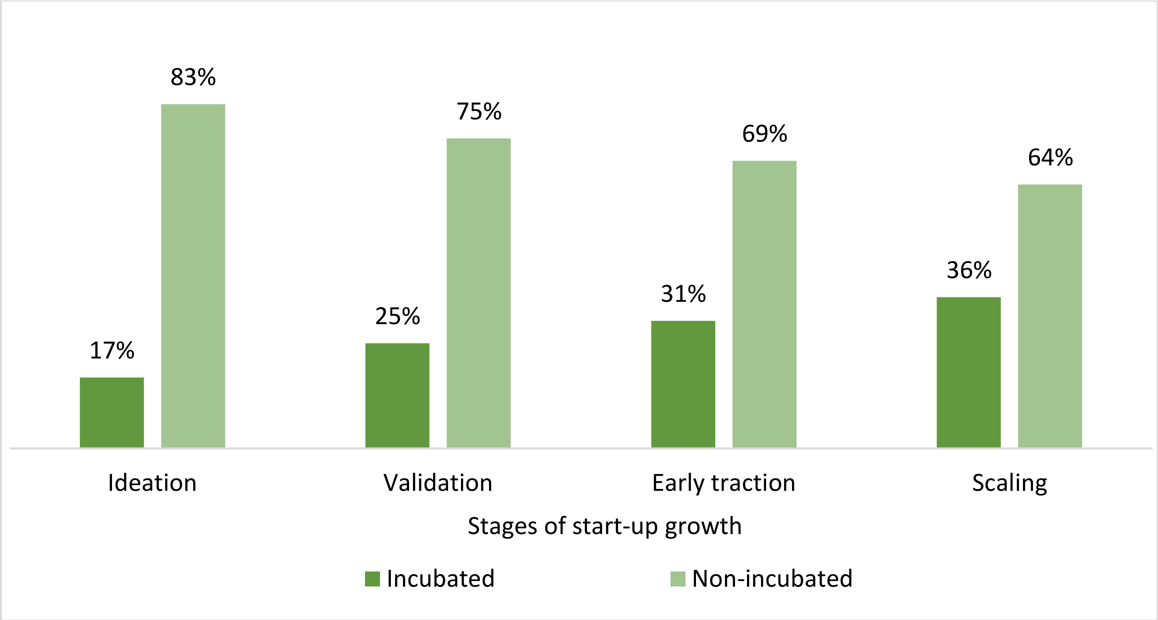
Interestingly, while 30 percent of non-IT sector start-ups had experience with incubation, only one-fourth (25 percent) of IT sector start-ups had ever been incubated (Figure 4.1). Non-IT start-ups may face higher barriers to entry (regulatory requirements, physical space needs, and manufacturing capabilities) that make incubation programs more necessary or attractive to them than their counterparts.



N: All respondents = 422; IT start-ups = 120; non-IT start-ups = 302

Figure 4.1: Distribution of IT and non-IT start-ups by ever-incubated

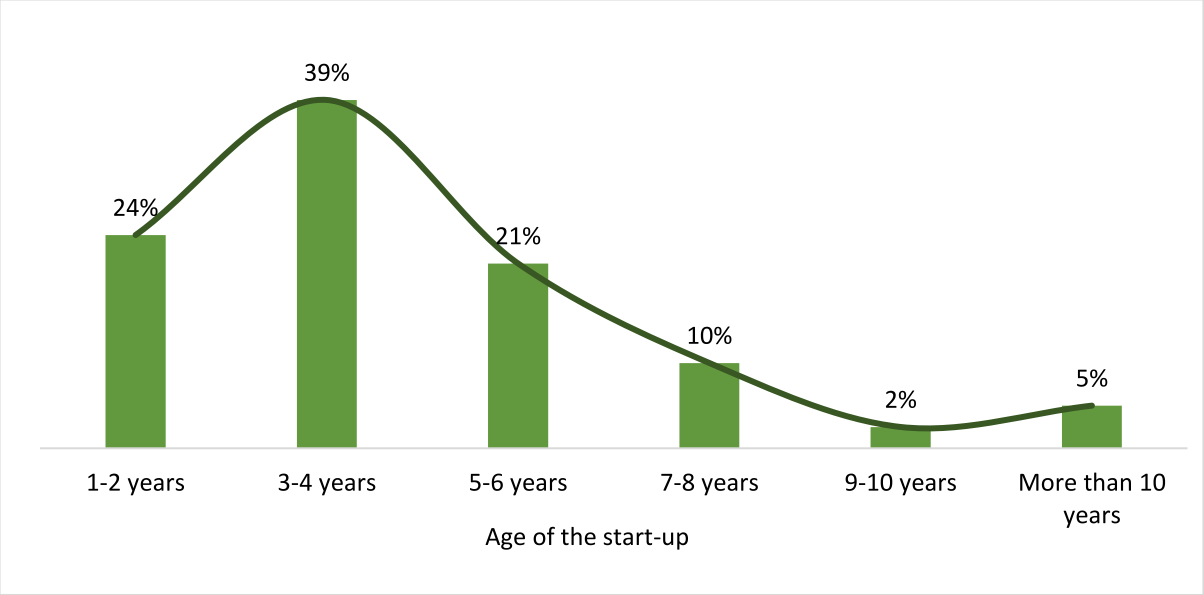
Figure 4.2 below presents access to incubation support across different stages of start-up growth. The data reveals that as start-ups develop, their utilisation of incubation services increases. Only 17 percent of start-ups at the ideation stage have ever been incubated, compared to over one-third (36 percent) of start-ups in the scaling stage.



N: All respondents = 422; Ideation = 41; Validation = 75; Early traction = 153; Scaling = 140

Figure 4.2: Distribution of IT and non-IT start-ups by ever-incubated

Data reveals that start-ups have a specific pattern in how start-ups utilise incubation resources throughout their lifecycle, as presented in Figure 4.3. Start-ups demonstrate the highest incubation participation during their early growth phase, specifically between 1 to 4 years after incorporation. Among the surveyed start-ups that have been incubated, over one-third (39 percent) fall within the 3-to-4-year age bracket, while approximately 24 percent are between 1-2 years old.



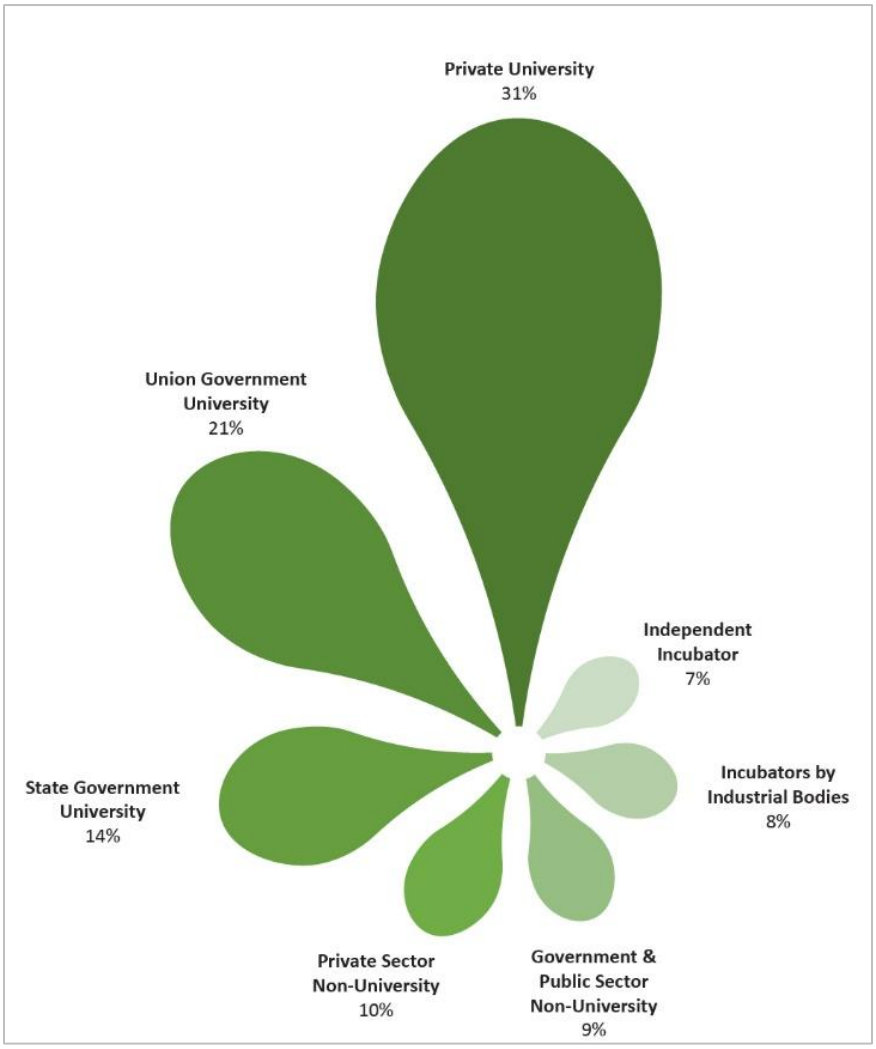
N: Start-ups that have ever been incubated = 126

Figure 4.3: Distribution of incubated start-ups by age of the start-up

4.1.1.2 Type of host organisation

Academic institutions form the foundation of Tamil Nadu's incubator ecosystem, with the highest concentration of incubation facilities in the state. As illustrated in Figure 4.4, a substantial proportion of start-ups have been incubated in academic institutions (85 percent).

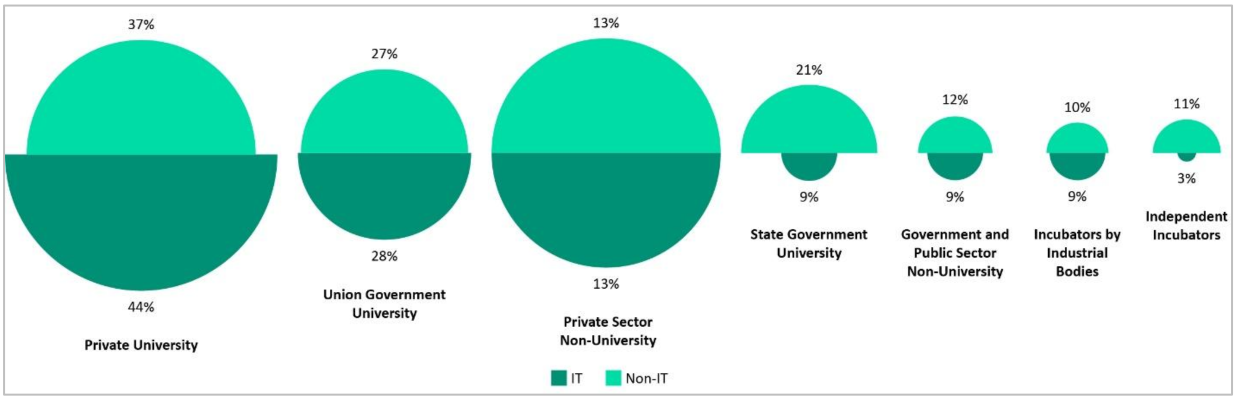
The dominant hosts are Private Universities, supporting 31 percent of the surveyed start-ups. Union Government Universities rank second, incubating 21 percent of start-ups, while State Government Universities host 14 percent of the incubated start-ups. Private sector non-universities and government and public sector non-universities have hosted 10 percent and 9 percent of the surveyed start-ups, respectively. This academic-centric incubation model appears to be a defining characteristic of Tamil Nadu's approach to fostering innovation and entrepreneurship, distinguishing it from models that might be more industry or government-agency-led.



N: Start-ups that have ever been incubated = 126

Figure 4.4: Distribution of incubated start-ups by type of host organisation

An analysis of host origination preferences reveals distinct patterns between IT and non-IT start-ups (Refer Figure 4.5). Private Universities emerge as the top choice for both sectors, followed by universities affiliated with the Union Government, with IT start-ups showing a stronger preference for these academic institutions than their non-IT counterparts. Conversely, non-IT start-ups gravitate toward State Government Universities and non-academic incubators, indicating these organisations may better address the practical, regional, or regulatory needs of traditional businesses, manufacturing, or service-oriented ventures.



N: Start-ups that have ever been incubated = 126; IT = 32; non-IT = 94

Figure 4.5: Distribution of IT and non-IT incubated start-ups by type of host organisation

Tamil Nadu's journey toward becoming a $1 trillion economy by 2030 is being shaped by a dynamic partnership between Higher Education Institutions (HEIs) and start-ups. These two pillars, knowledge and innovation, are increasingly intertwined, driving inclusive growth, job creation, and regional development. Table 4.1, provides a comprehensive view of the innovation and entrepreneurship landscape across Tamil Nadu's HEIs, covering 37 universities with varying start-up ecosystems and innovation outputs.

S.No	University Type	HEI Name	University District	Total Incubators	Total Start-ups	No. of Unicorns	Total Jobs	No. of Start-up Patents
1	State Public University	Alagappa University, Alagappa Nagar, Karaikudi	Sivaganga	0	20	0	1,043	8
2	State Public University	Anna University, Chennai	Chennai	7	758	0	14,170	531
3	State Public University	Annamalai University, Annamalainagar	Cuddalore	1	110	0	833	13
4	State Public University	Bharathiar University, Coimbatore	Coimbatore	1	112	0	1,132	20
5	State Public University	Bharathidasan University, Tiruchirappalli	Tiruchirappalli	1	83	1	608	54
6	State Public University	Madras University, Chennai	Chennai	1	295	1	40,306	194
7	State Public University	Mother Teresa Women's University, Kodaikanal	Dindigul	1	1	0		0
8	State Public University	Periyar University, Salem	Salem	2	23	0	796	19
9	State Public University	Tamilnadu Agricultural University (TNAU), Coimbatore	Coimbatore	6	149	0	353	20
10	Institute of National Importance	All India Institute of Medical Sciences Madurai	Madurai	0	0	0		0
11	Institute of National Importance	Dakshina Bharat Hindi Prachar Sabha	Chennai	0	0	0		0
12	Institute of National Importance	Indian Institute of Information Technology, Design & Manufacturing, Kancheepuram	Chengalpattu	1	62	0	59	5
13	Institute of National Importance	Indian Institute of Information Technology, Srirangam	Tiruchirappalli	1	0	0		0
14	Institute of National Importance	Indian Institute of Management Tiruchirapalli	Tiruchirappalli	1	6	0	148	0

S.No	University Type	HEI Name	University District	Total Incubators	Total Start-ups	No. of Unicorns	Total Jobs	No. of Start-up Patents
15	Institute of National Importance	Indian Institute of Technology, Chennai	Chennai	11	1036	6	1,32244	1,304
16	Institute of National Importance	National Institute of Food Technology, Entrepreneurship and Management, Thanjavur	Thanjavur	0	0	0		0
17	Institute of National Importance	National Institute of Technology, Tiruchirapalli	Tiruchirappalli	1	125	0	3,454	133
18	Institute of National Importance	Rajiv Gandhi National Instiute of Youth Development, Sriperumbudur	Kancheepuram	0	0	0		0
19	Deemed University-Private	Academy of Maritime Education and Training, Chennai	Chengalpattu	1	8	0		0
20	Deemed University-Private	Amrita Vishwa Vidyapeetham, Coimbatore	Coimbatore	3	158	0	665	71
21	Deemed University-Private	B.S. Abdur Rahman Crescent Institute of Science & Technology, Chennai	Chengalpattu	1	127	0	268	67
22	Deemed University-Private	Chettinad Academy of Research & Education, Kancheepuram	Chengalpattu	0	7	0		0
23	Deemed University-Private	Hindustan Institute of Technology and Science, Kancheepuram	Chengalpattu	2	23	0	123	0
24	Deemed University-Private	Kalasalingam Academy of Research and Education	Virudhunagar	1	87	0	164	7
25	Deemed University-Private	Karpagam Academy of Higher Education, Coimbatore	Coimbatore	1	24	0		0
26	Deemed University-Private	Karunya Institute of Technology and Sciences, Coimbatore	Coimbatore	1	26	0		14

S.No	University Type	HEI Name	University District	Total Incubators	Total Start-ups	No. of Unicorns	Total Jobs	No. of Start-up Patents
27	Deemed University-Private	M.G.R. Educational and Research Institute, Chennai	Thiruvallur	1	24	0		6
28	Deemed University-Private	Periyar Maniammai Institute of Science & Technology, Thanjavur	Thanjavur	1	24	0		7
29	Deemed University-Private	S.R.M. Institute of Science & Technology, Chennai	Chengalpattu	1	130	0	639	56
30	Deemed University-Private	Sathyabama Institute of Science & Technology, Chennai	Kancheepuram	2	107	0	404	1
31	Deemed University-Private	Saveetha Institute of Medical and Technical Sciences	Thiruvallur	0	16	0	12	0
32	Deemed University-Private	Shanmugha Arts, Science, Technology & Research Academy (SASTRA), Thanjavur	Thanjavur	2	94	0	1,316	46
33	Deemed University-Private	Sri Ramachandra Institute of Higher Education and Research, Thiruvallur	Thiruvallur	1	10	0	1,184	11
34	Deemed University-Private	Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science & Technology, Chennai	Thiruvallur	1	272	0	370	82
35	Deemed University-Private	Vellore Institute of Technology, Vellore	Vellore	2	229	1	3,864	186
36	Deemed University-Private	Vels Institute of Science, Technology and Advanced Studies, Chennai	Chengalpattu	1	10	0		2
37	Deemed University-Private	Vinayaka Missions Research Foundation, Salem	Salem	0	26	0	738	7

S.No	University Type	HEI Name	University District	Total Incubators	Total Start-ups	No. of Unicorns	Total Jobs	No. of Start-up Patents
38	Deemed University-Government Aided	Avinashilingam Institute for Home Science & Higher Education for Women, Coimbatore	Coimbatore	1	7	0		11

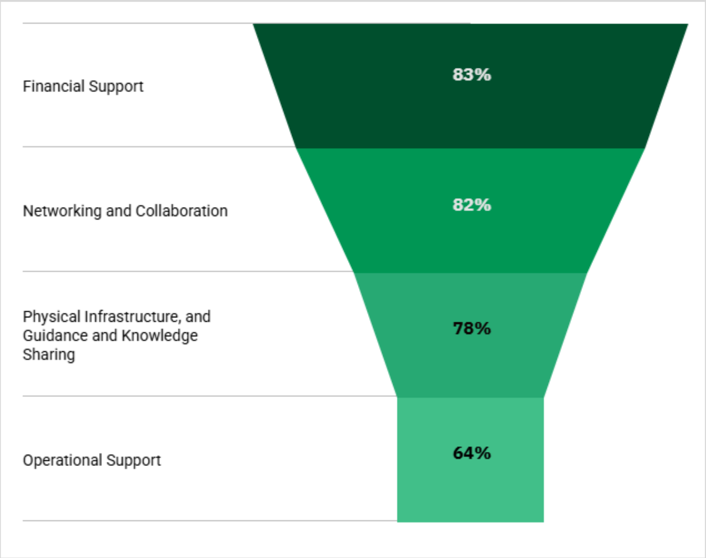
Source: YNOS Venture Engine

Table 4.1: Innovation and Entrepreneurship landscape across Tamil Nadu's Higher Education Institutions

4.1.1.3 Type of support provided by incubators

Incubators provide a wide array of support to start-ups, including physical spaces, access to funding, mentorship, and networking opportunities. These resources typically encompass co-working spaces, specialised facilities, initial growth capital, and expert advisory services. Survey respondents were presented with a pre-defined list of incubation facilities and asked to indicate which were available at their respective incubators. The findings are presented in Table 4.6 below.

In general, incubators are positioning themselves in the broader start-up ecosystem as predominantly funding and networking centres rather than full-service support centres (Refer Figure 4.6). Financial support (83 percent) and networking/collaboration opportunities (82 percent) rank as the top services provided by incubators, suggesting that incubators recognise funding and relationship-building as the most critical factors for start-up success. Incubators understand that start-ups need both physical infrastructures, including office space and internet access, and knowledge resources, such as mentorship and research access, and they are also widely available (78 percent each). However, operational support services like legal compliance, IT assistance, and marketing/PR are less prioritised, offered by only 64 percent of incubators.



N: Start-ups that have ever been incubated = 126

Figure 4.6: Distribution of incubated start-ups by type of support available

Table 4.2 below reveals distinct patterns in how host organisations support start-ups, with notable strengths and weaknesses across categories. University-affiliated and government-backed incubators consistently outperform private sector organisations in providing comprehensive support to start-ups. State Government Universities excel with strong physical infrastructure and guidance services, while Independent Incubators demonstrate exceptional performance in networking and physical infrastructure. In contrast, Private Sector Non-University organisations show significant weaknesses in operational support and guidance, though they maintain good financial support.

Financial support emerges as the highest-rated support category overall, indicating its prioritisation across the ecosystem. Government and Public Sector Non-University organisations lead in this area, followed closely by Central Government Universities and Independent Incubators. Even organisations scoring lower in this category, such as Incubators by Industrial Bodies and Private Universities, still maintain relatively strong funding support compared to their performance in other categories. This emphasis on financial support likely reflects recognition of funding as a critical start-up need, though the varying approaches suggest different philosophies about start-up development, with some focusing primarily on funding while others adopt more comprehensive support models, including mentorship, operational assistance, and infrastructure.

On the other hand, there is significant variation in the availability of prototyping tools (such as 3D printers, labs, and equipment for product development) across different host organisation types, highlighting an important aspect of physical infrastructure support for start-ups. State Government Universities lead in this category with 87 percent offering these facilities, closely followed by Private Universities (82 percent) and Independent Incubators (82 percent). This strong performance by academic institutions likely reflects their established research infrastructures and technical resources that can be extended to start-ups.

4.1.1.4 Sources of information

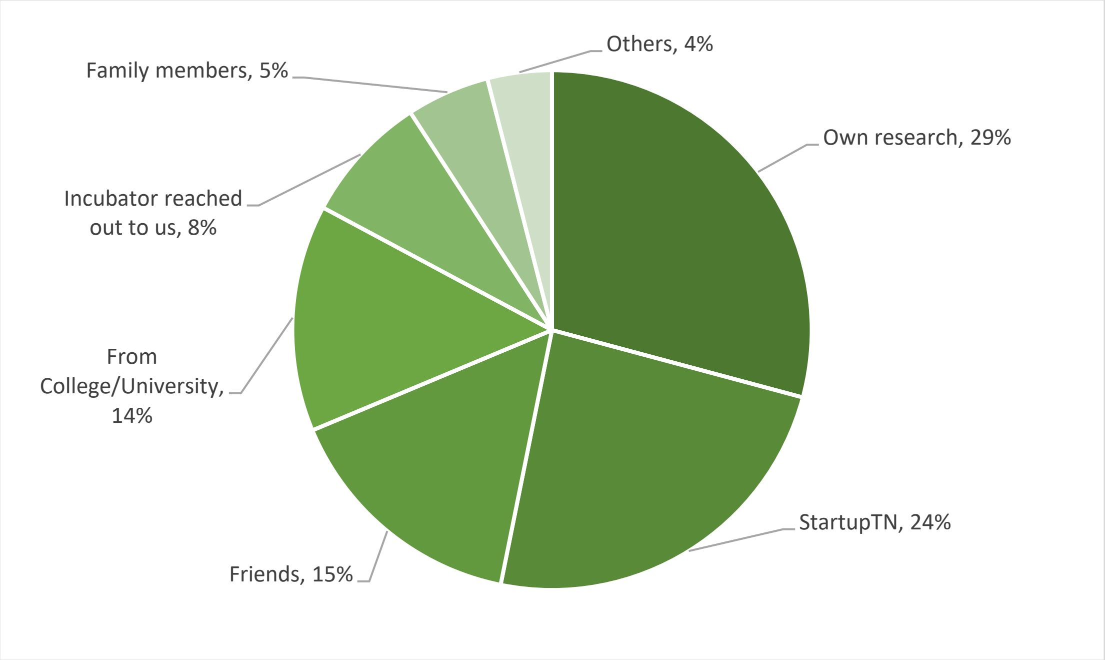
The data on how start-up founders discover and select incubators reveals important insights about information flow within the entrepreneurial ecosystem (Refer Figure 4.7). The predominant method is self-directed research, with nearly one-third (29 percent) of founders actively investigating the incubation landscape to find programs aligned with their specific needs. This proactive approach suggests a high level of founder agency and information-seeking behaviour.

StartupTN emerges as a significant information hub within the ecosystem, serving as the second most important source for founders seeking incubation opportunities. Personal networks also play a crucial role, with 15 percent of founders relying on friend recommendations, pointing to the importance of reputation and word-of-mouth in the incubator selection process. The founders have also leveraged the existing institutional relationships and familiarity when making incubation decisions, with 14 percent of founders choosing incubators affiliated with their alma mater. Very few founders report being approached by incubation programs.

Facilities available	Host Organisations						
	Private University	Central Government University	State Government University	Private Sector Non-University	Government & Public Sector Non-University	Incubators by Industrial Bodies	Independent Incubator
Physical Infrastructure							
Office Space	94%	94%	96%	94%	91%	92%	100%
Meeting Rooms	92%	91%	91%	81%	88%	92%	100%
Internet Access	88%	94%	91%	94%	93%	83%	91%
Prototyping Tools [3D printers, labs, and equipment for product development]	82%	77%	87%	56%	71%	58%	82%
Recreational Facilities	53%	53%	65%	31%	43%	25%	73%
Guidance and Knowledge Sharing							
Mentorship and Guidance	88%	97%	91%	63%	86%	75%	100%
Workshops and Training	82%	88%	96%	56%	86%	83%	91%
Access to Research	71%	71%	78%	56%	71%	33%	64%
Financial Support							
Funding Opportunities	74%	91%	87%	81%	93%	67%	91%
Networking and Collaboration							
Networking Events	80%	85%	87%	56%	86%	83%	100%
Operational Support							
Legal and Compliance Support	61%	77%	70%	38%	79%	58%	73%
Administrative Services	67%	79%	70%	50%	79%	75%	64%
IT Support	65%	79%	83%	50%	79%	67%	73%
Marketing and PR Assistance	49%	74%	70%	50%	64%	58%	55%

N: Start-ups that have ever been incubated = 126

Table 4.2: Distribution of incubated start-ups by facilities available in the host organisation

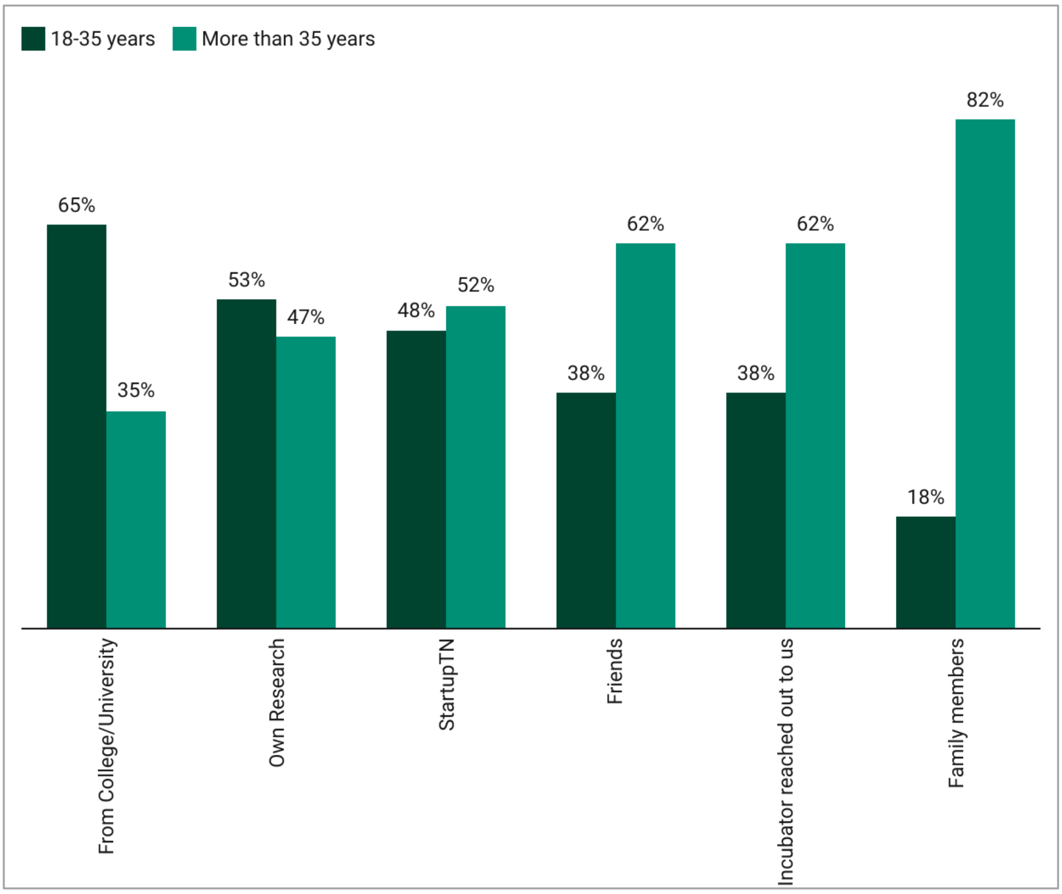


N: Start-ups that have ever been incubated = 126

Figure 4.7: Sources from which respondents learnt about the incubator

Figure 4.8 reveals distinct generational differences in how start-up founders approach incubator selection, reflecting varying information-seeking behaviours and network utilisation patterns. Founders in the 18-35 age group demonstrate a marked preference for independent research (53 percent) and a strong tendency to remain within familiar academic environments, with nearly two-thirds (65 percent) choosing incubators affiliated with their educational institutions.

In contrast, founders over 35 years have significantly different information-gathering strategies, with more than half (52 percent) relying on official government sources like StartupTN for incubator information. These more established entrepreneurs leverage broader social networks, consulting friends (62 percent) and family members (82 percent) at substantially higher rates than their younger counterparts.



N: Start-ups that have ever been incubated = 126

Figure 4.8: Age-based differences in incubator selection patterns

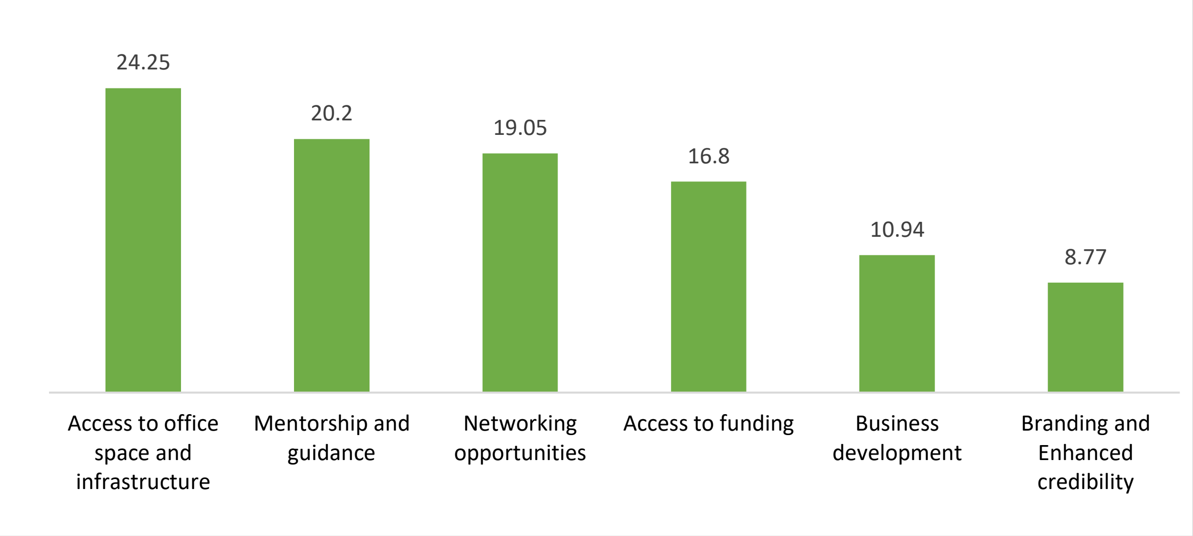
4.1.1.5 Ways in which incubators help start-ups grow

To understand how incubation helps the start-ups grow, respondents were asked to assign marks to a set of pre-defined responses based on their importance, ensuring the total adds up to 100. The mean scores are presented in Figure 4.9 below.

Access to physical infrastructure and office space emerges as the most highly valued aspect of incubation, with a leading mean score of 24.25. This strong prioritisation suggests that despite the increasing digitalisation of work, physical workspace remains a critical foundation for early-stage ventures, providing not only operational necessities but potentially also legitimacy and a professional environment for team collaboration and client interactions. Mentorship and guidance rank as the second most valuable contribution (mean score of 20.2), highlighting the significance founders place on experiential knowledge transfer and strategic direction from experienced advisors. Closely following is the value placed on networking opportunities (19.05), demonstrating founders' recognition that relationship capital and ecosystem connections are fundamental growth drivers nearly as important as formal mentorship.

While access to funding opportunities ranks fourth (16.8), its substantial score indicates its recognised importance in the growth equation, though interestingly, founders value it less than the operational, knowledge, and networking resources mentioned above. This

suggests a nuanced understanding that while funding is necessary, it may not be sufficient without the proper foundation of workspace, guidance, and networks to effectively deploy that capital. Business development support (10.94) and branding/enhanced credibility (8.77) receive significantly lower scores but still register as meaningful contributors to growth.



N: Start-ups that have ever been incubated = 126

Figure 4.9: Ways in which incubation helped the start-up grow – Mean scores

4.1.2 Challenges faced

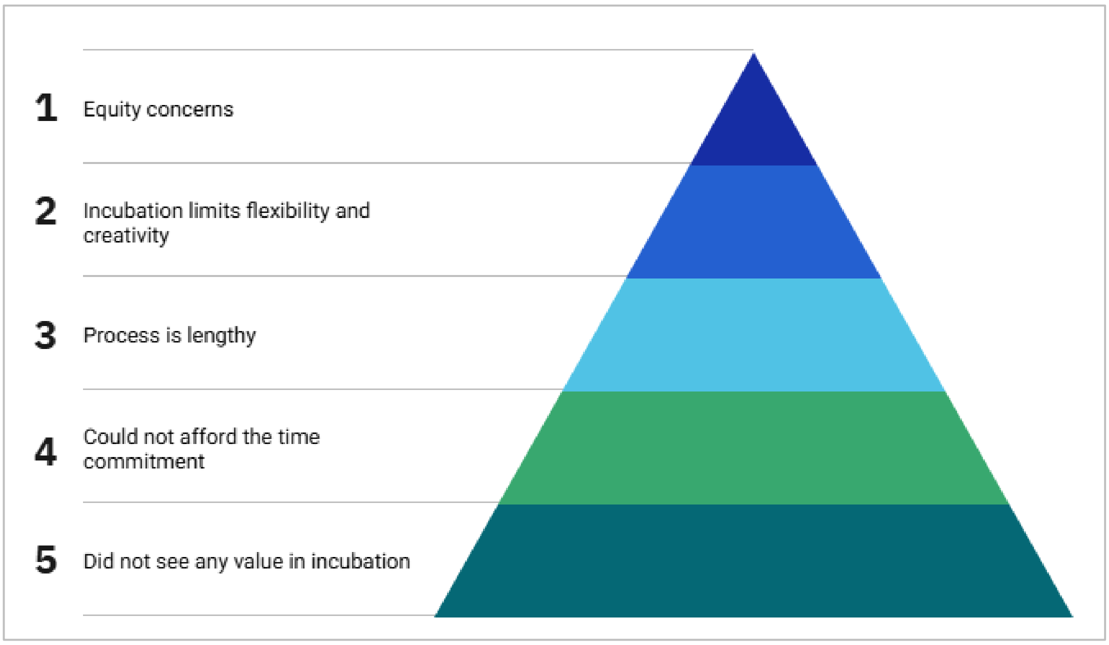
HIGHLIGHTS

- The primary deterrent to applying for incubation is equity dilution concerns, with founders worried about surrendering ownership and control of their start-ups.
- Despite having broader networks and using diverse information sources, entrepreneurs over 35 years old face more obstacles in the incubator selection process.
- Non-IT sector founders (76 percent) and scaling-stage start-ups (53 percent) disproportionately experience challenges during incubator selection, indicating an ecosystem gap in supporting these segments.
- Selection decision delays and non-responsiveness to inquiries rank among the top challenges in the incubator selection process, suggesting operational inefficiencies.

4.1.2.1 Reasons for not applying for incubation

Most surveyed start-up founders chose not to pursue incubation opportunities. As presented in Figure 4.10, the primary concern was equity dilution, with founders worried about surrendering ownership, control, and potential financial returns. The second most significant barrier was perceived constraints on flexibility and creativity, with founders fearing that incubation programs might limit their innovative freedom. The lengthy selection process ranked as the third most common deterrent, followed by founders'

inability to commit the necessary time. Finally, some founders simply did not perceive sufficient value in incubation programs to justify application.



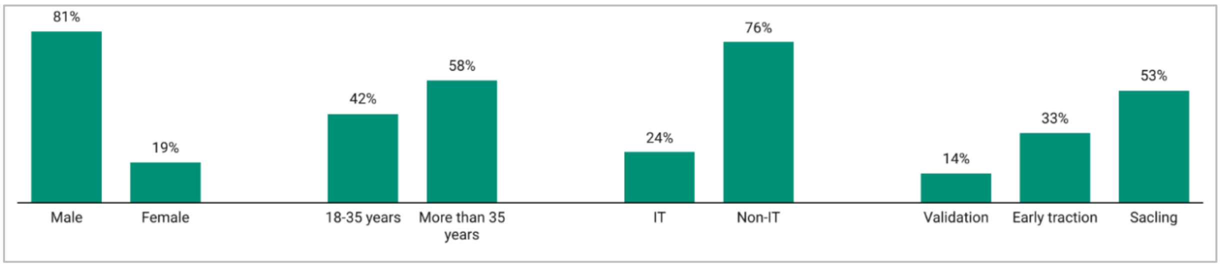
N: Start-ups that have never incubated = 296

Figure 4.10: Ranking of reasons for not applying for incubation

4.1.2.2 Selection process

As presented in Figure 4.11, the survey data reveals an important dimension of friction within the incubator ecosystem, with 17 percent of respondents (21) reporting challenges during the incubator selection process. This finding suggests that while the majority navigate selection successfully, a significant minority encounters obstacles that could potentially impact optimal matching between start-ups and support environments.

Demographic analysis of these respondents reveals distinct patterns - those reporting selection difficulties were predominantly male (81 percent), and over half were aged above 35 years (58 percent). This age-related finding appears counterintuitive when considered alongside earlier data showing older founders utilise more diverse information sources and broader networks when selecting incubators (Refer Figure 4.9). Despite their more sophisticated approach to gathering incubator information, these founders nevertheless encounter more obstacles in the selection process. The sectoral distribution of these challenges is noteworthy, as non-IT sector founders represent a disproportionate share of those reporting selection difficulties (76 percent). Perhaps most revealing is that over half of the respondents experiencing selection challenges are leading start-ups in the scaling stage (53 percent).



N: Respondents who faced challenges in the selection process = 21

Figure 4.11: Distribution of respondents by challenges faced during the incubator selection process

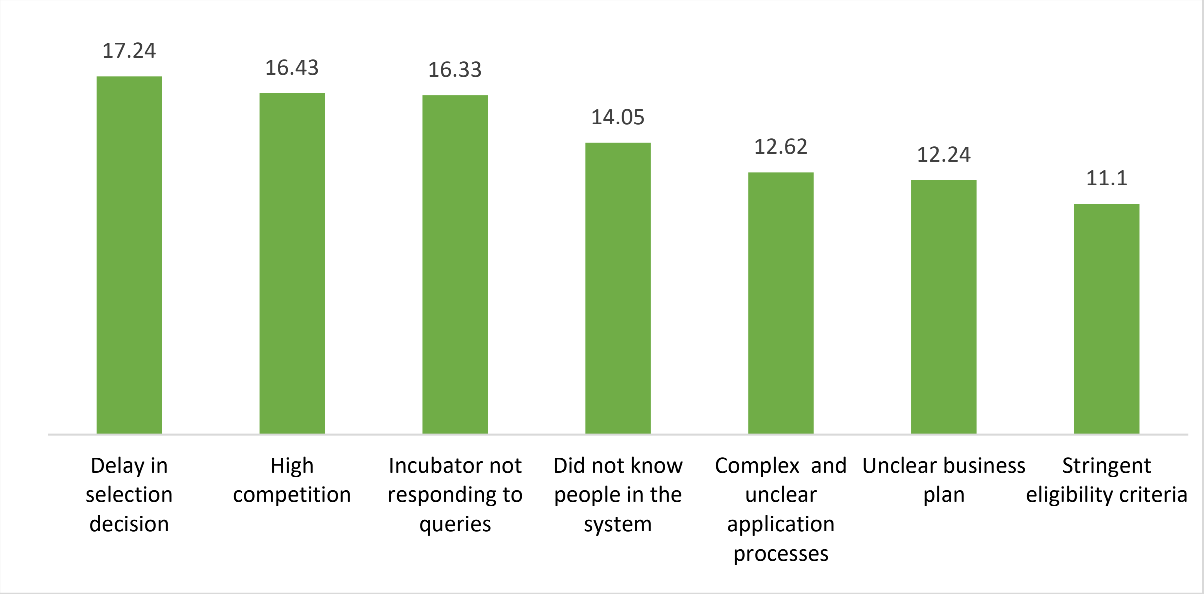
Types of challenges faced

The surveyed start-up founders who faced challenges during the incubator selection process were asked to assign marks to a set of pre-defined responses on the types of challenges faced, ensuring the total adds up to 100. The mean scores are presented in Figure 4.12 below.

Selection decision delays rank as the most significant challenge (mean score of 17.24), revealing a fundamental gap in the system where lengthy evaluation periods create uncertainty and potentially impede start-up momentum. High competition for incubator spots (mean score of 16.43) and non-responsiveness to inquiries (mean score of 16.33) closely follow as major barriers, suggesting capacity constraints within the incubation ecosystem and potential communication deficiencies. The fourth-ranked challenge - not knowing people in the system (mean score of 14.05) indicates that, despite formal application processes, network connections and insider relationships may still significantly influence selection outcomes

Process-related challenges with complex and unclear application procedures (mean score of 12.62), ranking fifth, reveal that navigational complexity serves as a barrier to entry. This is followed by issues related to the start-ups themselves: unclear business plans (mean score of 12.24) and inability to meet stringent eligibility criteria (mean score of 11.1).

The high ranking of process-related issues (delays, non-responsiveness, complex applications) indicates that incubators may be operationally optimised for certain start-up profiles while creating friction for others, particularly those outside technology sectors or beyond early stages (Refer Figure 4.11).



N: Respondents who faced challenges in the selection process = 21

Figure 4.12: Type of challenges faced during the incubator selection process

4.1.3 Areas to strengthen

HIGHLIGHTS

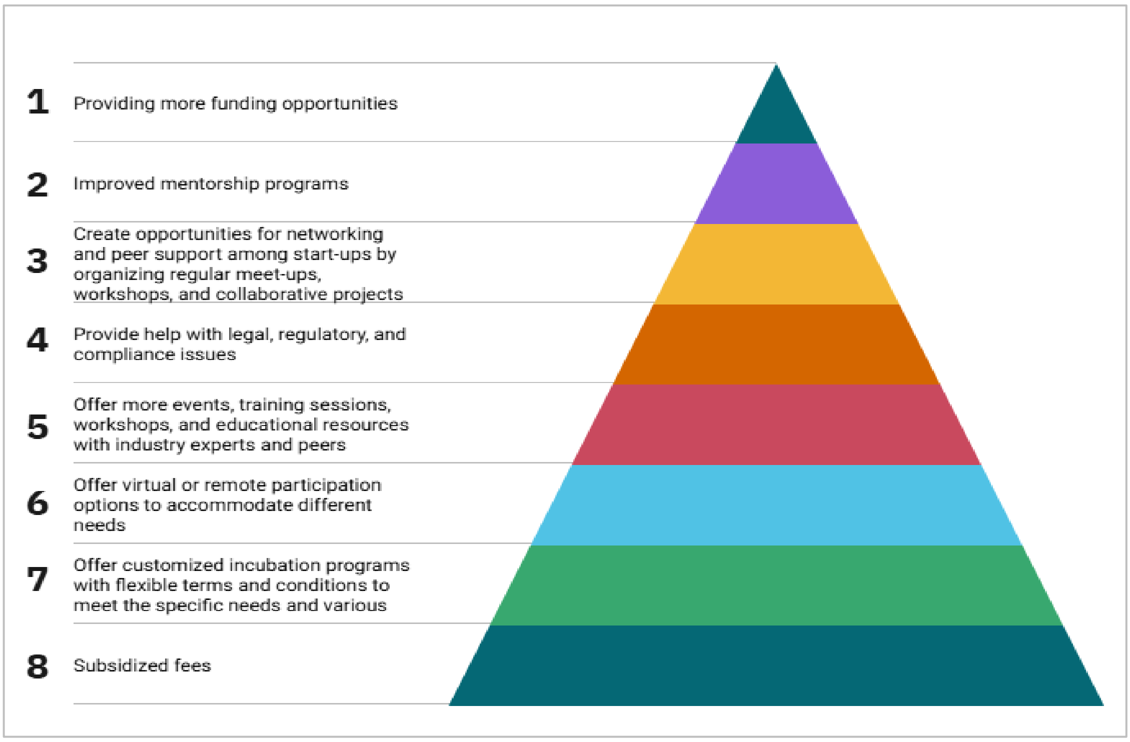
- Funding opportunities rank as the highest priority improvement for incubators, suggesting that while financial support exists, it fails to meet start-ups' actual needs in terms of amount, accessibility, timing, or structure.
- Founders highly value improvements in networking and peer support opportunities, recognising that inter-start-up relationships provide unique value distinct from formal incubator services.
- While operational factors like virtual participation options and customised programs matter, they are secondary to start-ups' fundamental needs for high-quality funding, mentorship, and networking opportunities.

The respondents, based on their experience, were asked to rank a list of eight pre-defined improvements to make incubators more effective for start-ups. The results are presented in Figure 4.13 below.

Despite funding opportunities and mentorship being identified as the most commonly available services (Refer Figure 4.6), these same categories top the list of requested improvements. Funding opportunities ranking as the highest priority improvement indicate that while financial support may be technically available, it likely fails to meet start-ups' actual needs in terms of amount, accessibility, timing, or structure. The high ranking of networking and peer support improvements highlights founders' recognition that inter-start-up relationships and collaborative opportunities provide unique value

distinct from formal incubator services. The fourth-ranked improvement for enhanced legal and regulatory assistance reflects the complex compliance landscape start-ups navigate. This is followed by requests for more industry expert events, suggesting founders value specialised knowledge transfer opportunities beyond standard mentorship arrangements.

The relatively lower rankings of virtual participation options, customised programs with flexible terms, and subsidised fees provide a valuable perspective on founders' priorities. While these operational factors matter, they are secondary to the fundamental need for high-quality, accessible funding, mentorship, and networking opportunities.



N: Start-ups that have ever been incubated = 126

Figure 4.13: Ranking of improvements that make incubators more effective for start-ups

Market Access was identified as a significant area for start-ups, presenting both opportunities and considerable challenges during the FGD. While Tamil Nadu's policy is noted for its emphasis on domestic market opportunities, founders highlight difficulties in accessing these markets, particularly through public procurement. Challenges include the perception that tender processes are "pro-market" due to requirements like minimum turnover and EMD, a significant lack of awareness about opportunities like the GeM portal, and general difficulty in establishing market connections. Improving access to markets and addressing these procedural barriers are seen as crucial for start-up growth and sustainability.

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

The qualitative findings are presented in Figures 4.14, 4.15, and 4.16 respectively.

4.2 Summary

This chapter examines the start-up support ecosystem in Tamil Nadu, focusing on incubators, networking, and mentorship opportunities. The analysis reveals moderate adoption of incubation services, with only 30 percent of surveyed start-ups having utilized these facilities during development.

Key findings indicate that non-IT sector start-ups demonstrate higher incubation participation rates compared to IT companies, suggesting greater infrastructure needs for traditional businesses. Academic institutions dominate Tamil Nadu's incubator landscape, hosting 85 percent of incubated start-ups, with Private Universities leading at 31 percent, followed by Union Government Universities at 21 percent.

Incubators primarily function as funding and networking hubs rather than comprehensive support centers, with 83 percent providing financial support and 82 percent offering networking opportunities. Start-ups value physical infrastructure and office space most highly (mean score 24.25), followed by mentorship and guidance (20.2), and networking opportunities (19.05).

The chapter identifies significant challenges within the ecosystem. Equity dilution concerns represent the primary deterrent to incubation applications, while selection process delays and non-responsiveness emerge as major operational barriers. Despite available services, start-ups consistently request improvements in funding opportunities, networking, and peer support, indicating a gap between current offerings and actual needs.

The research highlights that while Tamil Nadu maintains a robust academic-centred incubation model, addressing operational inefficiencies and enhancing service quality remains crucial for fostering greater entrepreneurial success throughout the state.

SUPPORT SYSTEMS – INCUBATORS

OPPORTUNITIES

Availability of Infrastructure, mentorship, and exposure various across cities/towns.

Start-ups have benefited from early-stage funding and events (e.g., Coffee with Collector, StartupTN tie-ups).

Enabled cost-effective scaling and access to prototyping infrastructure.

"The ecosystem at IIT Research Park and access to manpower made it easier to start."

"Coffee with collector... visionary administrators are supporting programs."

"Mentorship is first... that is an important thing I am getting here."

"We got into Pondicherry incubator... hired interns from VIT campus."

"We get access to space, funding, mentoring… helped us scale up from 5 to 15 members."

CHALLENGES

Lack of awareness, sectoral bias, and bureaucratic inefficiencies restricted access and effectiveness.

Many start-ups unaware of schemes; selective access and urban-centric incubator presence limited inclusion.

Deep-tech and biotech start-ups faced funding/infrastructure gaps due to sector misfit or grant opacity.

"We didn't know how to apply or even that incubators existed for our field."

"They only supported their students, not outsiders like us."

"Few people only know about these schemes, outside IIT, awareness is very low."

"For manufacturing, no place was available in colleges, we ran around for six months."

"Some incubators charge equity; founders don't know their valuation, it's confusing."

SUGGESTIONS

Need for decentralized incubators, simplified processes, and mentorship support in Tier 2/3 cities.

Participants preferred centralised information systems, cross-incubation access, and equity transparency.

Calls for manufacturing- focused infra, localised hubs, and partnerships with colleges and government institutions.

"We need an incubator in every district college or polytechnic college."

"We need people who can mentor or share experience regularly."

"If State Planning Commission can create a GBT model, would be a great solution"

"We need a system of cross-incubation or friendly incubation for access across centers."

"Founders don't know the rules of equity sharing, more transparency is needed"

Figure 4.14: Qualitative Findings on Support Systems – Incubators

SUPPORT SYSTEMS – MENTORING AND NETWORKING

OPPORTUNITIES

Access to mentorship, incubator-led guidance, and informal peer learning helped early-stage start-ups shape business ideas.

Incubators and startup events created strong peer networks and visibility, particularly for women and rural entrepreneurs.

Mentorship from experienced professionals and alumni supported product-market fit, strategy refinement, and goal-setting.

"At least the last 4-5 years, we see lot of women in this space."

"Mentorship from incubator managers helped in idea shaping and business model validation."

"I got a lot of market connects. For testing I used the lab, and also for collaboration I use it a lot."

"We get access to space, funding, mentoring… helped us scale up from 5 to 15 members."

CHALLENGES

Start-ups in Tier-2/3 towns face limited access to structured mentorship and rely heavily on personal networks.

Frequent turnover of incubation managers in colleges affected continuity in mentoring relationships.

Mentorship access is skewed towards students/alumni of host institutions; bootstrapped and unaffiliated founders face exclusion.

"The challenge is in private colleges, incubation manager is not being there for more than 6 months."

"I studied in another college without incubation facilities… they supported only students from their institution."

"When we were studying, there were no mentors. No one to explain Arduino or robotics, we had to search everything ourselves."

SUGGESTIONS

Need for decentralised incubators, simplified processes, and mentorship support in Tier 2/3 cities.

Participants preferred centralised information systems, cross-incubation access, and equity transparency.

Calls for manufacturing- focused infra, localised hubs, and partnerships with colleges and government institutions.

"We need an incubator in every district college or polytechnic college."

"We need people who can mentor or share experience regularly."

"If State Planning Commission can create a GBT model, would be a great solution"

"We need a system of cross-incubation or friendly incubation for access across centers."

"Founders don't know the rules of equity sharing, more transparency is needed"

Figure 4.15: Qualitative Findings on Support Systems – Mentoring and Networking

SUPPORT SYSTEMS - RESEARCH AND DEVELOPMENT

OPPORTUNITIES

Tamil Nadu's industrial ecosystem and academic institutions support R&D through access to labs, mentors, and talent.

Start-ups leveraged local knowledge, cultural insights, and field studies to create regionally relevant products

"State government was instrumental in setting up a research park… availability of technical manpower."

"We are very happy... lot of opportunity to work with. The infrastructure boost is happening."

"From my own pain point and study only we started... curated minimalist products for them after 2 years of R&D."

"We developed a platform where anyone can be a developer and integrate hardware and software."

CHALLENGES

High cost and lack of accessible R&D infrastructure in rural or Tier- 2/3 towns delays product development.

Finding suitable co-working spaces and, more critically, high-tech clustered manufacturing facilities.

"When you want to make a prototype, they ask about volume, government should support such work."

"No one told us how to validate our product. We had to figure out technical R&D completely alone."

"CFD skill was unavailable in local areas. Had to bring support from outside the state."

"Healthcare incubator is not there here. For cosmetics they don't have license and no incubation center for that."

SUGGESTIONS

Need for regional R&D hubs, inter-incubator collaboration, and common infrastructure for early- stage start-ups.

Simplify R&D grants, support collaborations with colleges, and create technical nodes for sectoral guidance.

"If R&D grants and schemes are listed clearly, it will be easier for us to apply and benefit."

"We need incubation centers to partner with local engineering colleges for R&D support."

"There should be labs with shared equipment in districts like ours so early-stage start-ups can access them affordably."

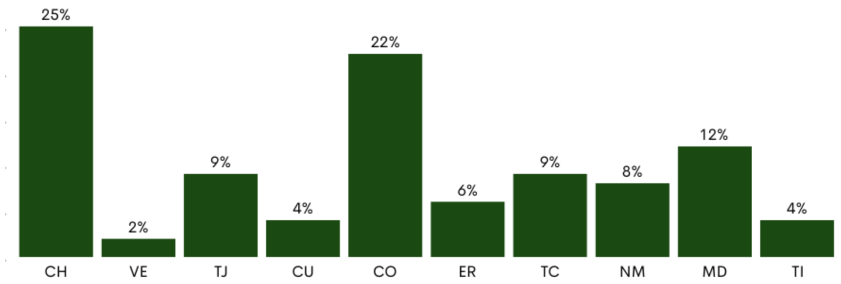
"If common facility is there like auto sector, start-ups can use robotics or medical device space."

Figure 4.16: Qualitative Findings on Support Systems – Research and Development

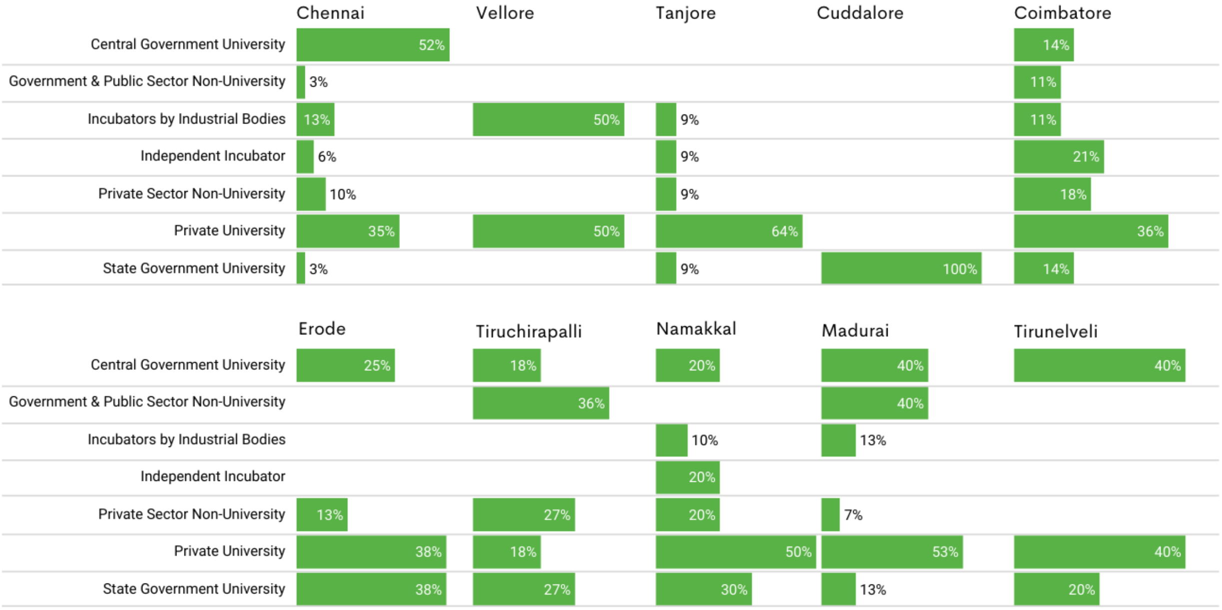
REGIONAL TRENDS

INCUBATION

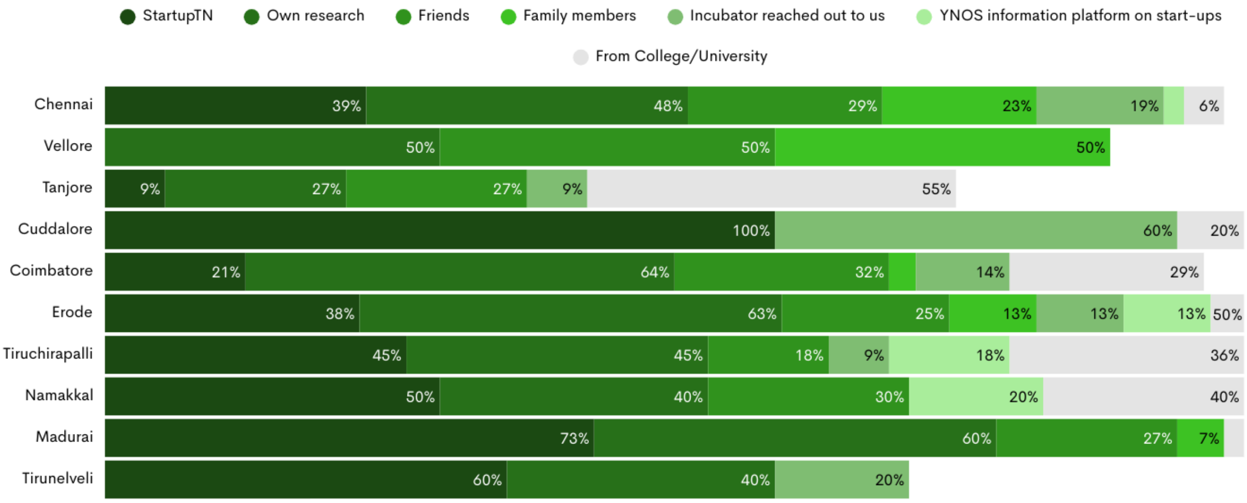
EVER INCUBATED



TYPE OF HOST ORGANISATION



SOURCES OF INFORMATION



Note: Total exceeds 100 percent due to multiple responses

CH: Chennai, VE: Vellore, TJ: Thanjavur, CU: Cuddalore, CO: Coimbatore, ER: Erode, TC: Tiruchirapalli, NM: Namakkal, MD: Madurai, TI: Tirunelveli

Chapter 5

Funding

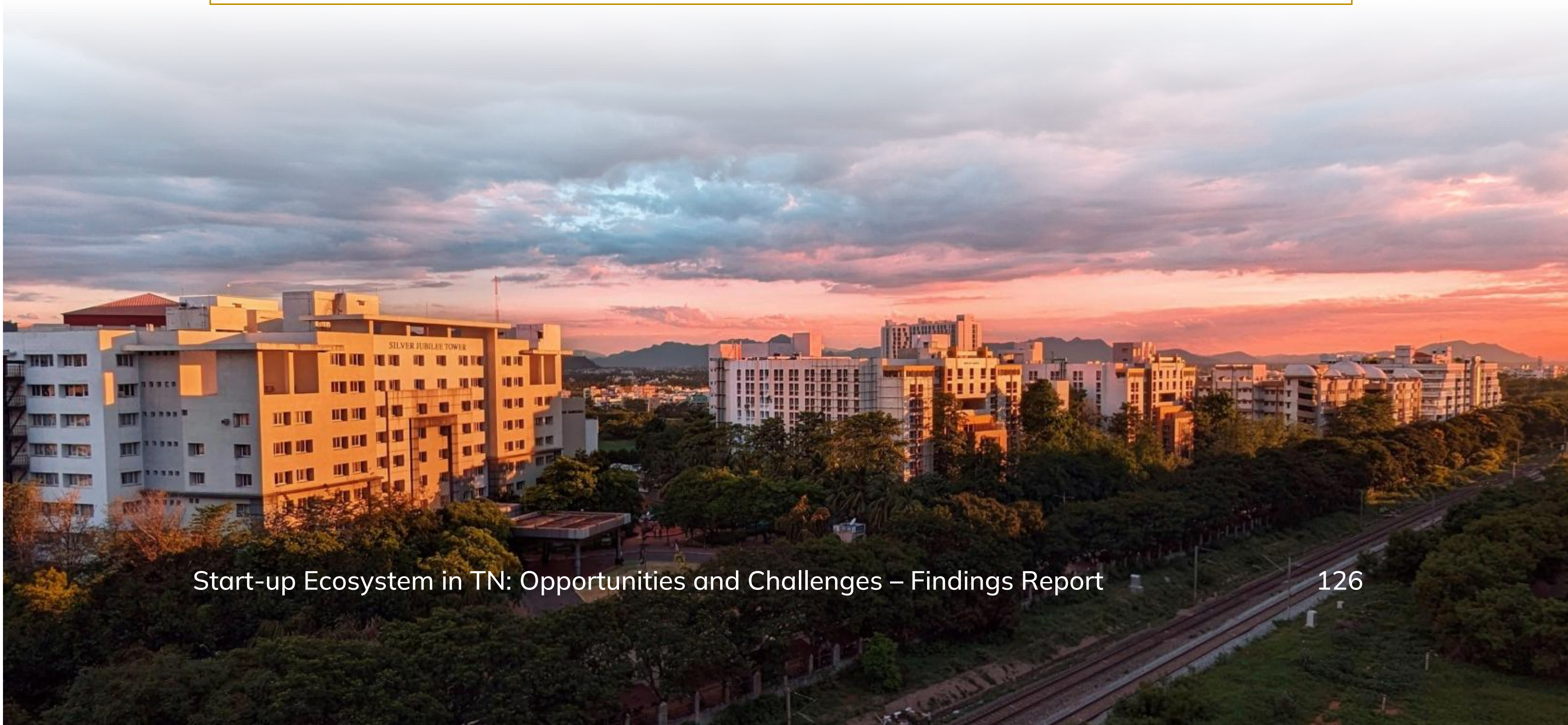
செல்வம் செழீஇயது அறம் செழீஇயது
இல்வாழ்வான் செல்வம் செழீஇயது. (Tirukkural 50)

The wealth of the householder who lives virtuously is true wealth

This chapter analyses funding access and challenges encountered by survey respondents, complemented by insights from focus-group discussions. Based on these findings, targeted recommendations are provided to improve funding accessibility and effectiveness for start-ups, ultimately promoting entrepreneurial success across Tamil Nadu.

5.1 Opportunities accessed

HIGHLIGHTS
▪ Funding patterns reveal heavy reliance on revenue (28 percent) and State Government sources (27 percent), while private investment remains notably low with only 5 percent receiving Angel investment and 4 percent securing Venture Capital. ▪ A striking gender disparity exists across all funding categories, with male founders receiving 84-94 percent of all funding, though female founders see slightly higher representation in state government funding (16 percent).



HIGHLIGHTS
▪ Incubated start-ups have dramatically higher success rates in receiving state government funding (27 percent) compared to non-incubated start-ups (3 percent), suggesting incubation provides significant advantages in accessing these funds. ▪ Start-ups with established funding relationships (those already receiving Union Government, VC, or Angel funding) show significantly higher application and success rates for state government funding, potentially creating a compounding advantage. ▪ Lack of awareness about different types of government funds emerged as the primary reason for not applying, followed by uncertainty about eligibility requirements and concerns about equity dilution, indicating persistent information gaps despite promotional efforts.

Access to critical resources related to funding

During the survey, respondents were presented with statements about essential resources needed for start-up growth and sustainability. They rated each statement on a five-point scale (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree). The results were analysed across different start-up growth stages and are presented in Table 5.1 below.

Analysis of the funding resource accessibility data reveals important stage-appropriate patterns. For seed funding access, agreement levels are relatively consistent across stages (22-31 percent), with validation-stage start-ups showing the highest strong agreement (11 percent). This consistency likely reflects that seed funding memories remain relevant regardless of the current growth stage. Regarding effective financial management, there's a progression in agreement as companies mature, with scaling-stage companies showing the highest combined agreement (36 percent), appropriate for their increased operational complexity. Most notably, for growth funding essential for scaling, the data shows alignment with expected needs - scaling-stage companies report the highest agreement (31 percent agree, 9 percent strongly agree), reflecting their immediate requirement for this funding type. These findings indicate that while some start-ups access appropriate funding for their specific growth stage, significant challenges exist across the ecosystem.

Stages of start-up growth	Access to critical resources related to funding					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not accessed
I was able to access seed funding, which was critical for our initial operations.						
Ideation	12%	15%	34%	29%	5%	5%
Validation	7%	15%	36%	27%	11%	5%
Early traction	10%	20%	33%	22%	8%	7%

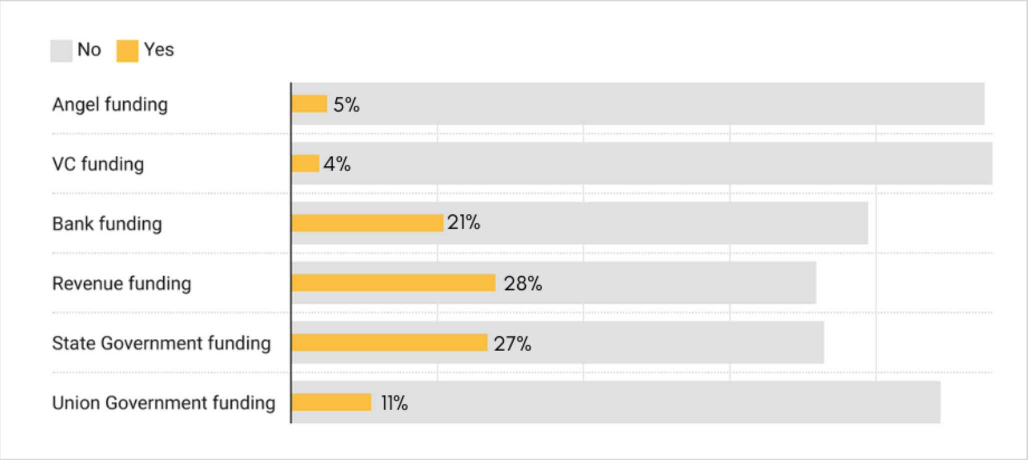
Stages of start-up growth	Access to critical resources related to funding					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not accessed
Scaling	11%	20%	27%	31%	5%	6%
I was able to access effective financial management for our start-up's sustainability.						
Ideation	10%	17%	37%	32%	2%	2%
Validation	7%	15%	36%	27%	11%	5%
Early traction	10%	20%	33%	22%	8%	7%
Scaling	11%	20%	27%	31%	5%	6%
I was able to access growth funding essential for scaling our business.						
Ideation	20%	17%	22%	22%	17%	2%
Validation	4%	15%	36%	28%	12%	5%
Early traction	9%	18%	29%	27%	8%	8%
Scaling	11%	19%	24%	31%	9%	6%

N: All respondents = 422

Table 5.1: Access to critical resources related to funding

5.1.1 Types of funding received

This funding pattern reveals a heavy reliance on government and operational sources rather than private investment (Refer Figure 5.1). Most surveyed start-up founders secured funding primarily from revenue (28 percent) or State Government sources (27 percent), followed by bank financing (21 percent). Union Government funding was accessed by 11 percent of founders, while private investment remained notably low, with only 5 percent receiving Angel investment and 4 percent securing Venture Capital.

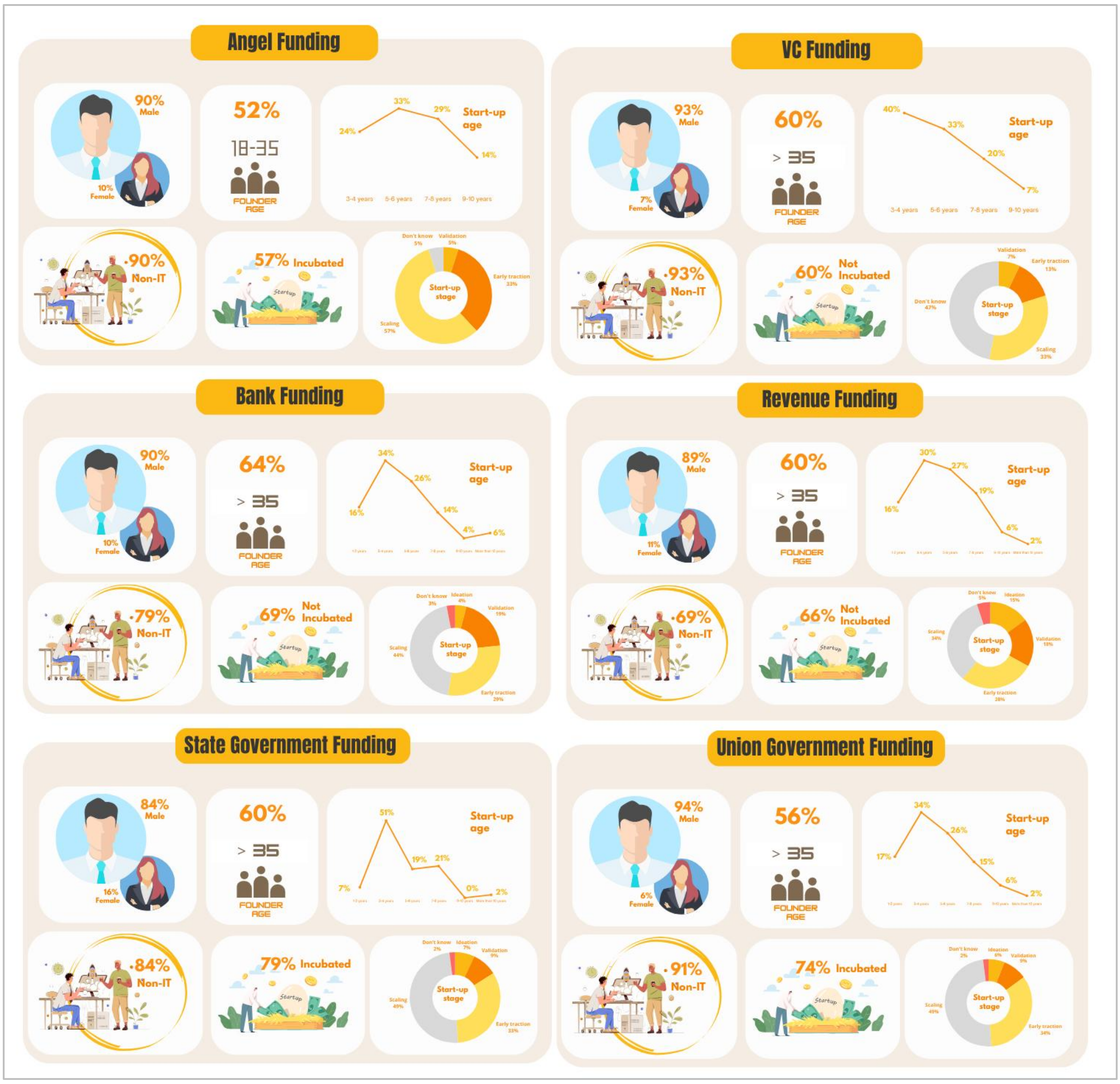


N: All respondents = 422

Figure 5.1: Different types of funding received by the surveyed start-ups

5.1.2 Profile of start-up founders by type of funding accessed

Analysis of the start-up funding data reveals distinct patterns across different funding sources (Refer Figure 5.2). Angel funding predominantly flows to younger founders (52 percent aged 18-35), while older founders (>35) secure the majority of all other funding types, particularly bank funding (64 percent). A striking gender disparity exists across all funding categories, with male founders receiving 84-94 percent of all funding, though female founders see slightly higher representation in state government funding (16 percent). Regarding start-up age, VCs favour very young companies (40 percent being 1-2 years old), while state government funding targets primarily 3–4-year-old ventures (51 percent). Non-IT sectors command the vast majority of all funding types (69-93 percent), with IT start-ups finding the most success with revenue funding (31 percent). Incubation appears critically important for government funding (state: 79 percent, union: 74 percent), whereas non-incubated start-ups have better access to bank (69 percent) and revenue funding (66 percent). Across all funding sources, scaling-stage start-ups receive the most investment (34-57 percent), followed by those showing early traction, while ideation-stage ventures struggle particularly with angel funding but fare somewhat better with revenue funding (15 percent).



N: Angel funding = 21; VC funding = 15; Bank funding = 90; Revenue funding = 117; State Government funding = 43; Union Government funding = 47

Figure 5.2: Profile of start-up founders by type of funding accessed

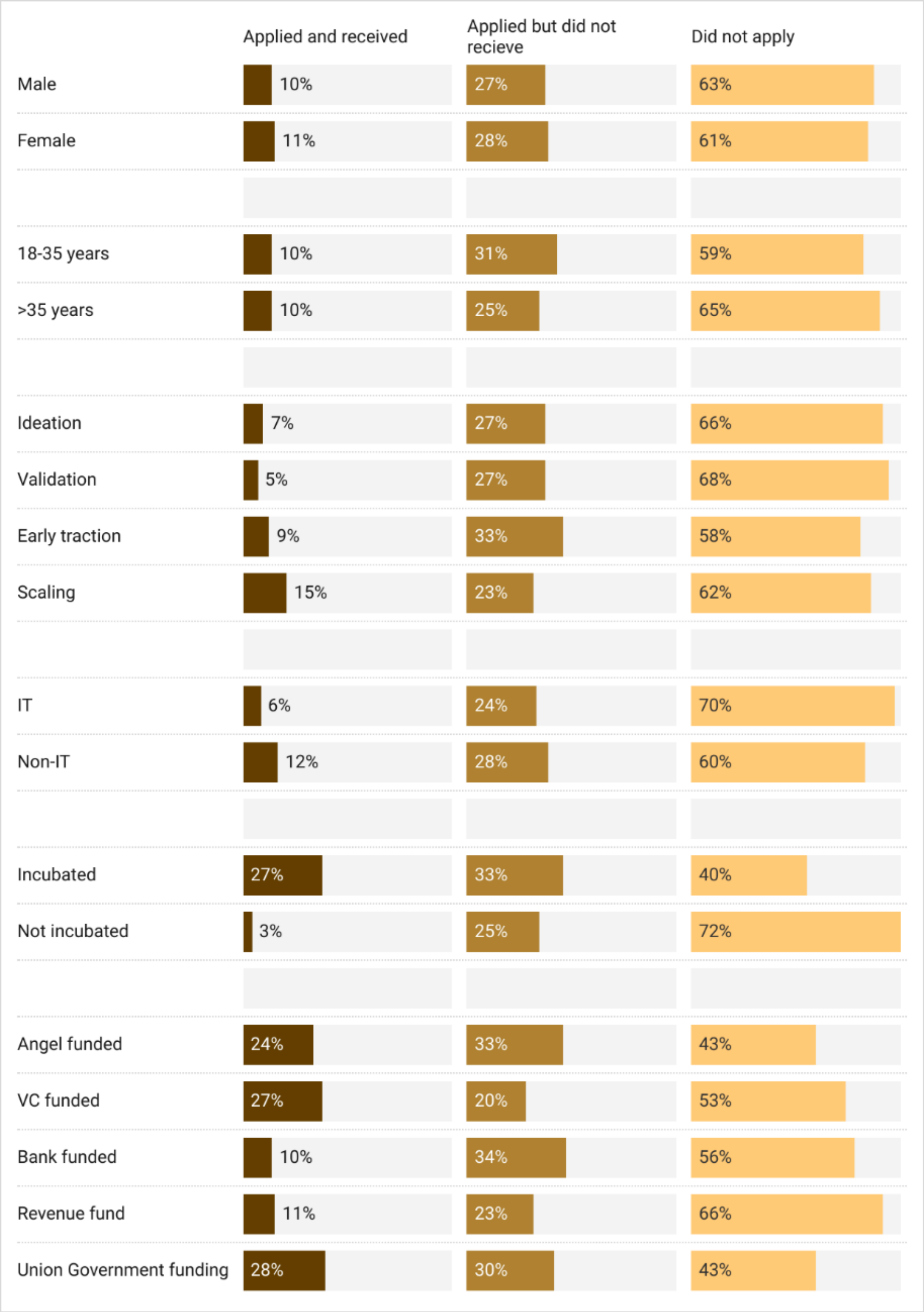
5.1.3 State Government funding application patterns

Analysis of Tamil Nadu state government funding data (Refer Figure 5.3) reveals that a majority of start-ups (59-72 percent) across categories did not apply for funding, with application rates hovering between 28-40 percent, depending on demographic and start-up characteristics. Success rates remain relatively low across groups, with most segments showing approximately 10-11 percent receiving funding.

Notably, scaling-stage start-ups (15 percent) and non-IT ventures (12 percent) demonstrate higher success rates, while the most striking difference appears in incubated start-ups, which received funding at dramatically higher rates (27 percent) compared to

non-incubated start-ups (3 percent). This suggests incubation provides significant advantages in accessing state funding.

The data reveal strong correlation between existing funding relationships and propensity to apply for state government funding, with Union Government funded start-ups (58 percent applied, 28 percent received), VC-funded start-ups (47 percent applied, 27 percent received), and angel-funded start-ups (57 percent applied, 24 percent received) showing significantly higher application and success rates than those without institutional backing like bank funding (44 percent applied, 10 percent received), and revenue funding (47 percent applied, 27 percent received).

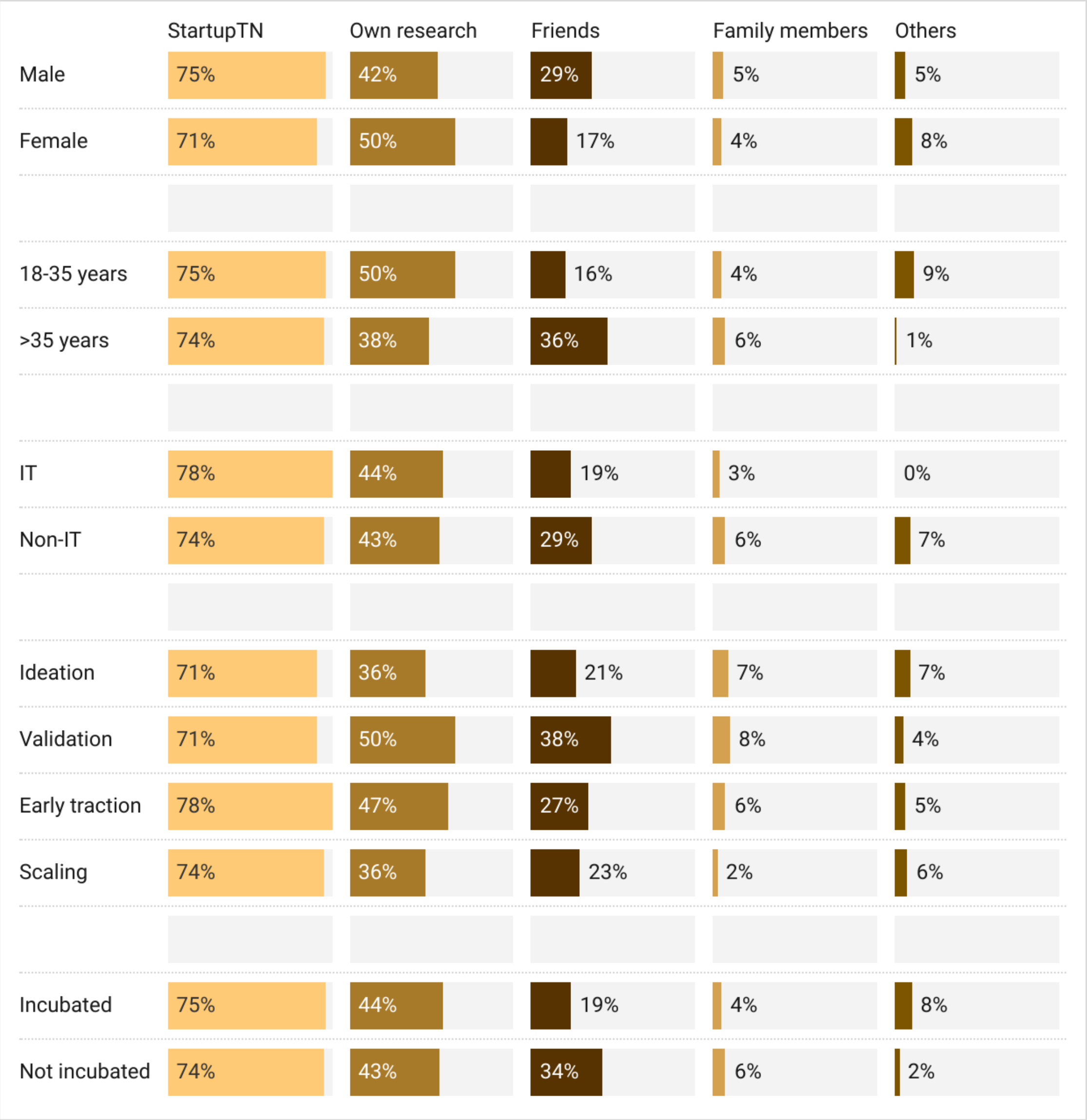


N: All respondents = 422

Figure 5.3: State Government funding application patterns

5.1.4 Sources of information on State Government funds

The primary information channels for State Government funding are StartupTN and founders' independent research, as evidenced in Figure 5.4, with this pattern consistent across demographic segments. While male founders (75 percent) and IT sector start-ups (78 percent) demonstrate slightly higher engagement with StartupTN compared to female founders (71 percent) and non-IT ventures (74 percent), other categories show minimal variation. Notably, female founders and younger entrepreneurs (18-35 years) both show equal propensity (50 percent) to conduct independent research on state funding opportunities, whereas male founders (29 percent), older entrepreneurs (>35 years) (36 percent), non-IT ventures (29 percent), and non-incubated start-ups (34 percent) leverage their social networks, particularly friends, for funding information.



N: Respondents who have applied and/or received State Government funding

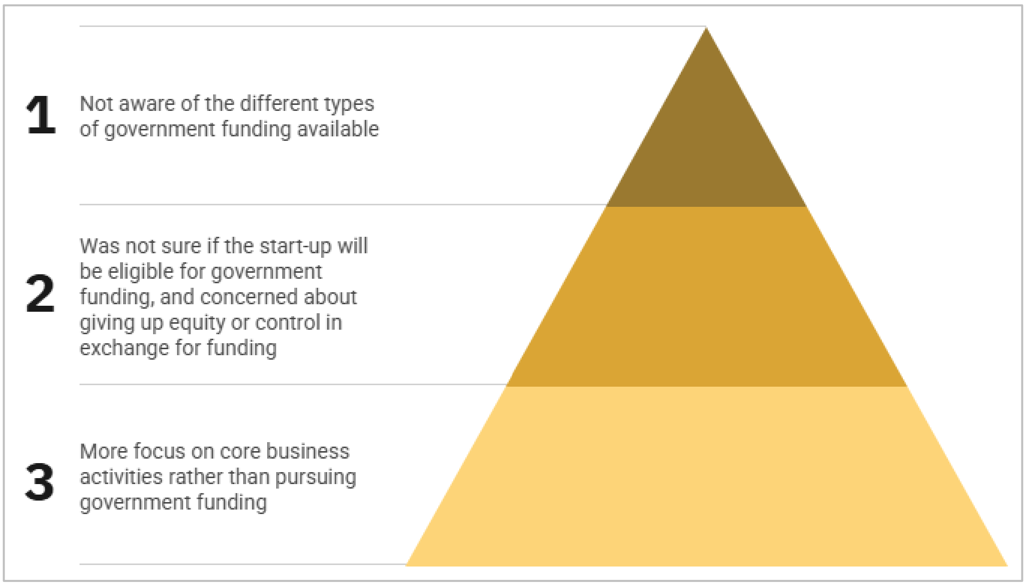
Note: Total does not add up to 100 percent due to multiple responses

Figure 5.4: Sources from which start-ups learnt about the Tamil Nadu Government Funds for start-ups

5.1.5 Reasons for not applying for State Government funds

The respondents who did not apply for State Government funds were asked to rank their reasons for not applying, with the top three reasons presented in Figure 5.5.

Lack of awareness about different types of government funds emerged as the primary reason cited by surveyed respondents. Despite concerted efforts by the Government of Tamil Nadu and StartupTN to promote funding initiatives, a significant information gap persists among founders. Closely following this, two factors tied for second place: uncertainty about eligibility requirements for government funding, which further highlights the information disconnect, and concerns about potentially relinquishing equity. The third most common reason was that founders preferred to concentrate on their core business activities rather than pursuing government funding options.



N: Respondents who have not applied for the State Government funding = 265

Figure 5.5: Ranking of reasons for not availing the State Government funds for start-ups

5.2 Challenges faced

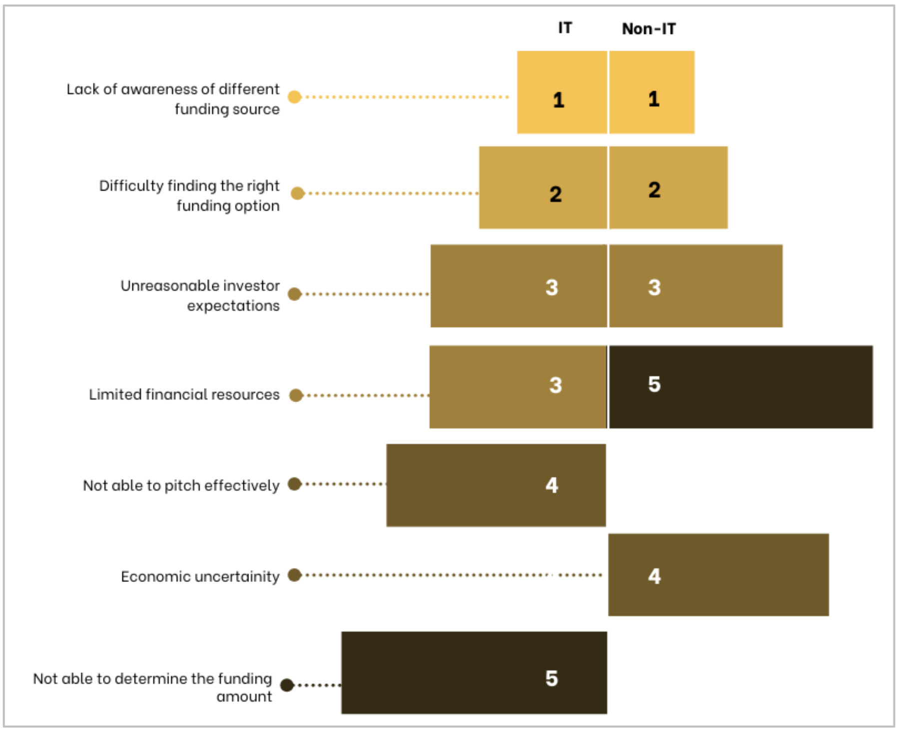
HIGHLIGHTS
▪ Information gaps represent the most significant funding hurdles, with "lack of awareness of different funding sources" and "difficulty finding the right funding option" ranking as the top two challenges across all start-up segments. ▪ IT start-ups struggle more with determining appropriate funding amounts and economic uncertainty, while non-IT start-ups face greater difficulties with effective pitching and limited financial resources. ▪ Even with incubator support, navigating the funding landscape remains challenging, as both incubated and non-incubated start-ups rank "lack of awareness of different funding sources" as their primary obstacle.

HIGHLIGHTS
▪ Incubated start-ups struggle significantly with "limited financial resources" (ranked 2nd) while this ranks much lower (5th) for non-incubated ventures, suggesting incubated start-ups might face more immediate cash constraints despite institutional backing. ▪ For state government funding specifically, high competition emerges as the most significant obstacle, followed by stringent eligibility criteria, unclear business plans, bureaucratic hurdles, and complex application processes.

5.2.1 Challenges faced in securing funds

A clear pattern emerges based on the ranking of challenges faced in securing funds. Information gaps represent the most significant hurdles, with "lack of awareness of different funding sources" and "difficulty finding the right funding option" ranking first and second, respectively. This suggests that founders struggle most with navigating the complex funding landscape before they even encounter investor expectations (ranked third) or deal with economic uncertainty and regulatory hurdles (ranked fourth). Interestingly, determining appropriate funding amounts ranks lowest, indicating that once founders understand their options, they can better calculate their financial needs.

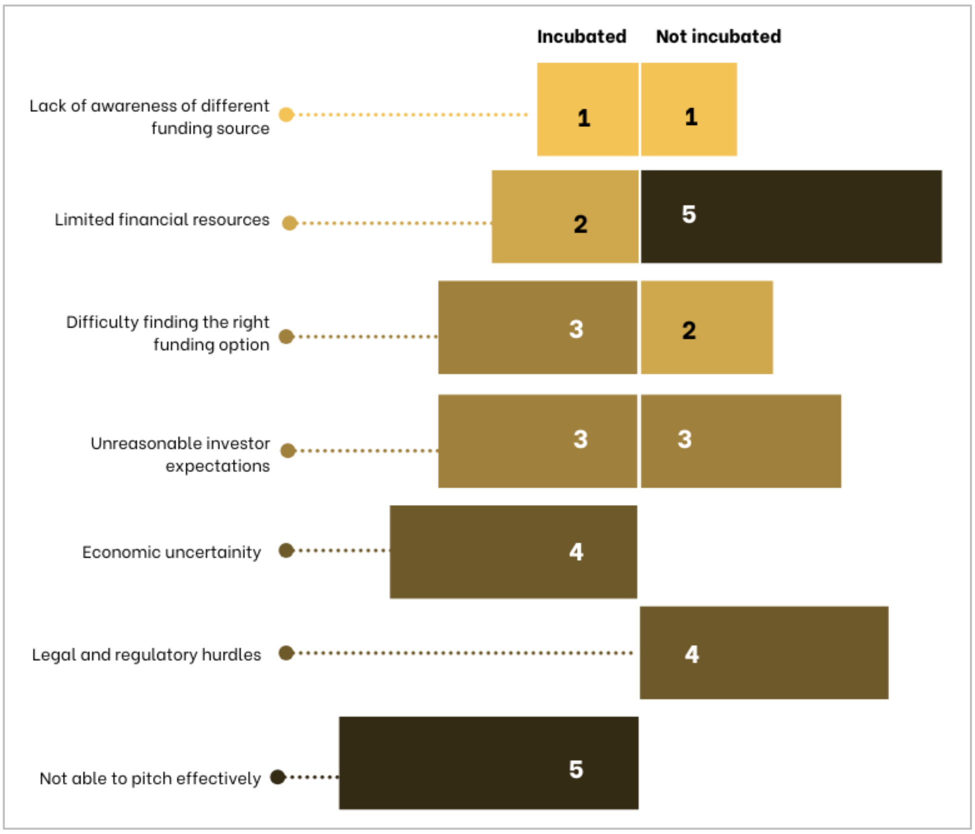
Analysing the funding challenges data reveals striking similarities and differences between IT and non-IT start-ups (Refer Figure 5.6). Both sectors rank "lack of awareness of different funding sources" and "difficulty finding the right funding option" as their top two challenges, suggesting that information gaps universally affect founders regardless of industry. However, divergences emerge in other areas: IT start-ups struggle more with determining appropriate funding amounts (ranked 5th) and economic uncertainty (ranked 4th), while non-IT start-ups face greater difficulties with effective pitching (ranked 4th) and limited financial resources (ranked 5th). Interestingly, unreasonable investor expectations rank identically (3rd) for both sectors, though non-IT start-ups share this rank with limited financial resources.



N: All Respondents = 422

Figure 5.6: Ranking of challenges faced while securing funds by IT and Non-IT start-ups

The challenges faced by incubated and non-incubated start-ups are presented in Figure 5.7. Both rank "lack of awareness of different funding sources" as their primary obstacle, indicating that even with incubator support, navigating the funding landscape remains challenging. However, incubated start-ups struggle significantly with "limited financial resources" (ranked 2nd) while this ranks much lower (5th) for non-incubated ventures. This suggests incubated start-ups might face more immediate cash constraints despite institutional backing. "Unreasonable investor expectations" occupy the same position (3rd) for both groups, indicating consistent friction with investors regardless of incubation status. Non-incubated start-ups uniquely struggle with "legal and regulatory hurdles" (4th) and "not being able to pitch effectively" (not ranked for incubated start-ups), highlighting the practical support incubators provide in these areas. Conversely, incubated start-ups rank "economic uncertainty" (4th) and "not able to pitch effectively" (5th), whereas non-incubated start-ups don't rank economic uncertainty at all.

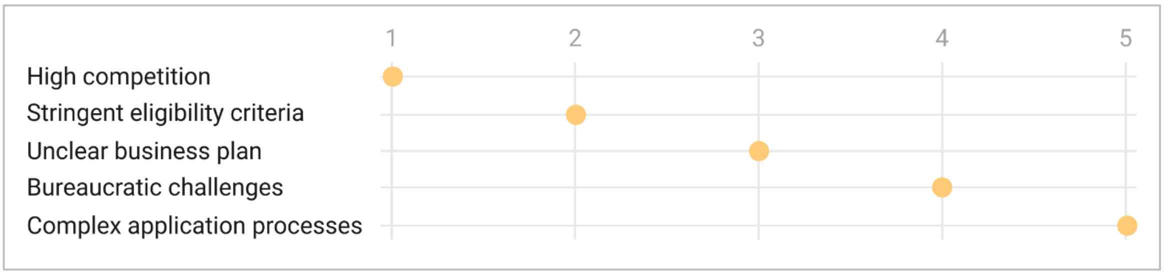


N: All Respondents = 422

Figure 5.7: Ranking of challenges faced while securing funds by incubated and not incubated start-ups

5.2.2 Challenges faced during State Government funding selection process

High competition emerges as the most significant obstacle, indicating that the volume of qualified applicants' strains limited funding resources (Figure 5.8). This is closely followed by stringent eligibility criteria, suggesting that state programs may have restrictive requirements, and that there's a capability gap where applicants haven't yet reached the standards established by state governments. The appearance of unclear business plans in the third position signals a gap in the founders' ability to articulate their value proposition effectively. The final two challenges, bureaucratic hurdles and complex application processes, point to structural inefficiencies in the funding system itself.



N: Respondents who have not applied for the State Government funding = 265

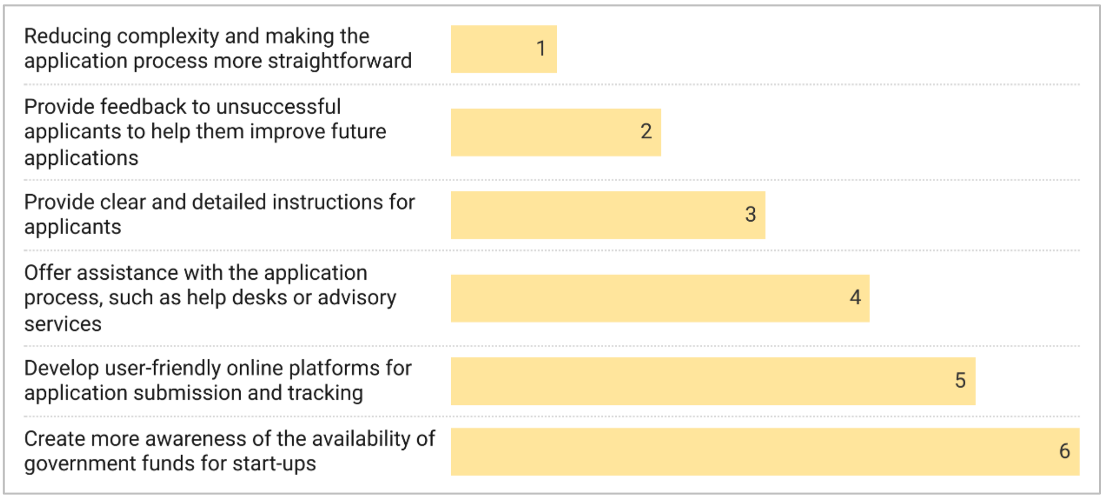
Figure 5.8: Ranking of challenges faced during the funding application process

5.2 Areas to strengthen

HIGHLIGHTS
▪ Start-ups primarily struggle with navigating complex processes rather than finding funding opportunities, with reducing complexity and streamlining the application process ranking as the highest priority improvement for Tamil Nadu's funding ecosystem. ▪ Transparency and learning opportunities are highly valued by founders, as providing feedback to unsuccessful applicants' ranks as the second most important improvement to make state funds more accessible. ▪ While awareness of available government funds is important, practical procedural improvements take precedence, including clear instructions, application assistance services, and user-friendly online platforms.

The ranking of suggested improvements to make Tamil Nadu funds more accessible to start-ups reveals critical priorities for enhancing the state's funding ecosystem (Refer Figure 5.9). They indicate that start-ups primarily struggle with navigating complex processes rather than simply finding funding opportunities.

The highest-ranked recommendation is to reduce complexity and make the application process more straightforward, highlighting that the administrative burden is the primary barrier for entrepreneurs. The second priority, providing feedback to unsuccessful applicants, indicates a desire for transparency and learning opportunities within the competitive process. Clear and detailed instructions rank third, reinforcing the need for better guidance. The fourth and fifth priorities, offering application assistance services and developing user-friendly online platforms, both address the need for practical support mechanisms. Creating greater awareness of available government funds ranks last, suggesting that while awareness is important, the actual procedural improvements take precedence.



N: All respondents = 422

Figure 5.9: Ranking of challenges faced during the funding application process

The qualitative findings are presented in Figure 5.10.

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

5.3 Summary

This chapter examines funding access and challenges for Tamil Nadu start-ups, revealing critical patterns in the entrepreneurial ecosystem. The analysis shows heavy reliance on revenue (28 percent) and state government sources (27 percent), with private investment remaining notably low - only 5 percent received angel investment and 4% secured venture capital. Bank financing accounted for 21 percent of funding sources.

Significant gender disparities exist across all funding categories, with male founders receiving 84-94 percent of funding, though female founders show slightly higher representation in state government funding at 16 percent. Incubation provides substantial advantages, with incubated start-ups achieving dramatically higher success rates in state government funding (27 percent) compared to non-incubated start-ups (3 percent).

The primary challenge identified is information gaps rather than a lack of funding opportunities. "Lack of awareness of different funding sources" and "difficulty finding the right funding option" rank as the top two obstacles across all start-up segments. For state government funding specifically, high competition emerges as the most significant barrier, followed by stringent eligibility criteria.

Key recommendations focus on simplifying processes rather than increasing awareness. Start-ups prioritise reducing application complexity, providing feedback to unsuccessful applicants, and offering clearer instructions. The findings suggest that while Tamil Nadu has established funding mechanisms, procedural improvements, and better information dissemination are essential to enhance accessibility and effectiveness for the start-up ecosystem.

____

FUNDING AND FINANCE

OPPORTUNITIES

Startups accessed early-stage funding and mentorship from incubators, government schemes and networks.

Many founders relied on bootstrapping to retain control, validate their ideas, and avoid compliance hurdles.

Mentorship, informal peer guidance and local events helped some navigate funding challenges.

"We were bootstrapped for 6 years... I wanted to be sure of my market before going for external money."

"Initially, I used my savings. It gave me time to understand the market."

"Through Startup TN program with collector, we got introduced to investors."

"An investor liked the idea and connected us with CSR support."

CHALLENGES

Start-ups faced complex compliance norms and regulatory hurdles that delayed access to funding.

Founders lacked awareness of funding schemes and how to apply, especially outside metro incubators.

Lack of documentation, credit history, and guarantees hindered access to bank loans and formal finance.

"I had to spend three months just dealing with GST notices."

"There are grants but we don't know who to ask or how to apply."

"I travelled around 6 months to 1 year…bankers are not willing to take risk."

SUGGESTIONS

Participants suggested local helpdesks and training on financial planning and documentation.

Call to simplify compliance processes and create single-window systems for startup support.

Requests for subsidised infrastructure, duty free equipment for R&D-heavy sectors.

"If there is a local helpdesk for financial forms and guidance, many of us will be able to apply."

"In the bank they ask do you have land, do you have jewels, unreasonable questions."

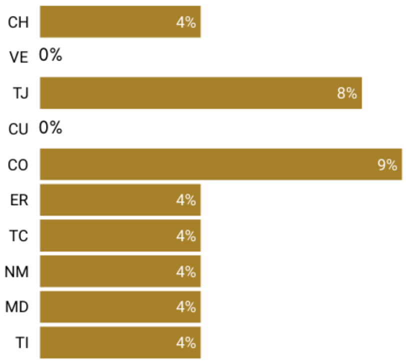
"We need a credit card model like Kisan card. We lack facilities for battery testing, if such main facilities are there it will be easy."

Figure 5.10: Qualitative findings – Funding and Finance

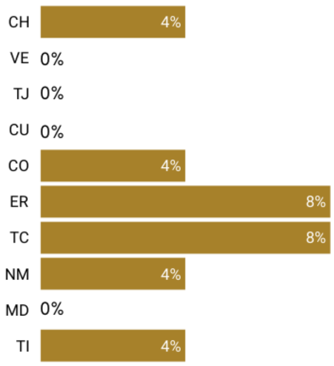
REGIONAL TRENDS

FUNDING

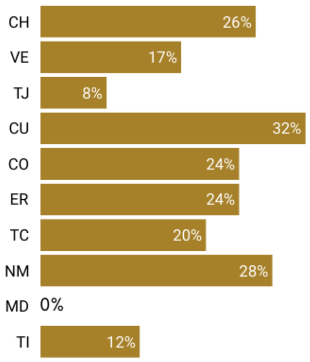
EVER RECEIVED ANGEL FUNDING



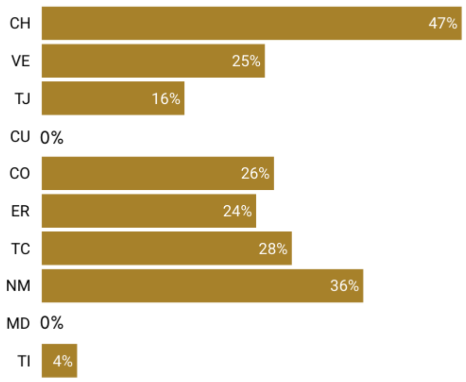
EVER RECEIVED VC FUNDING



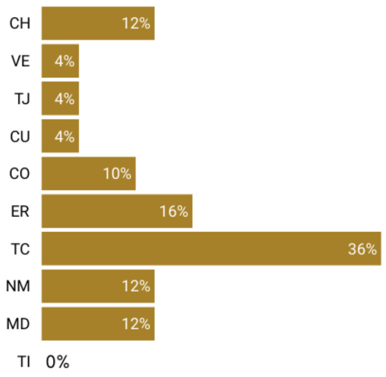
EVER RECEIVED BANK FUNDING



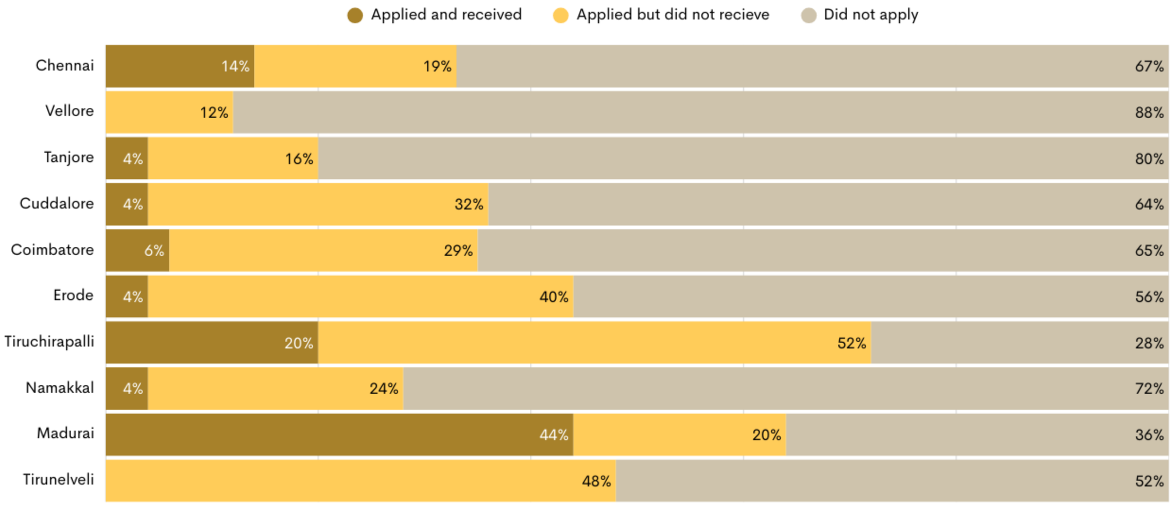
EVER RECEIVED REVENUE FUNDING



EVER RECEIVED UNION GOVERNMENT FUNDING



STATE GOVERNMENT FUNDING



CH: Chennai, VE: Vellore, TJ: Thanjavur, CU: Cuddalore, CO: Coimbatore, ER: Erode, TC: Tiruchirapalli, NM: Namakkal, MD: Madurai, TI: Tirunelveli

Chapter 6

Government Schemes and Initiatives

இருள்சேர் இருவினையும் சேரா இறைவன்
பொருள்சேர் புகழ்புரிந்தார் மாட்டு (Tirukkural 543)

The ruler who upholds justice and prosperity is untouched by evil.

This chapter presents the findings on the awareness and access to various state government schemes and initiatives for start-ups in the state implemented through the nodal agency, StartupTN.

6.1 Opportunities accessed

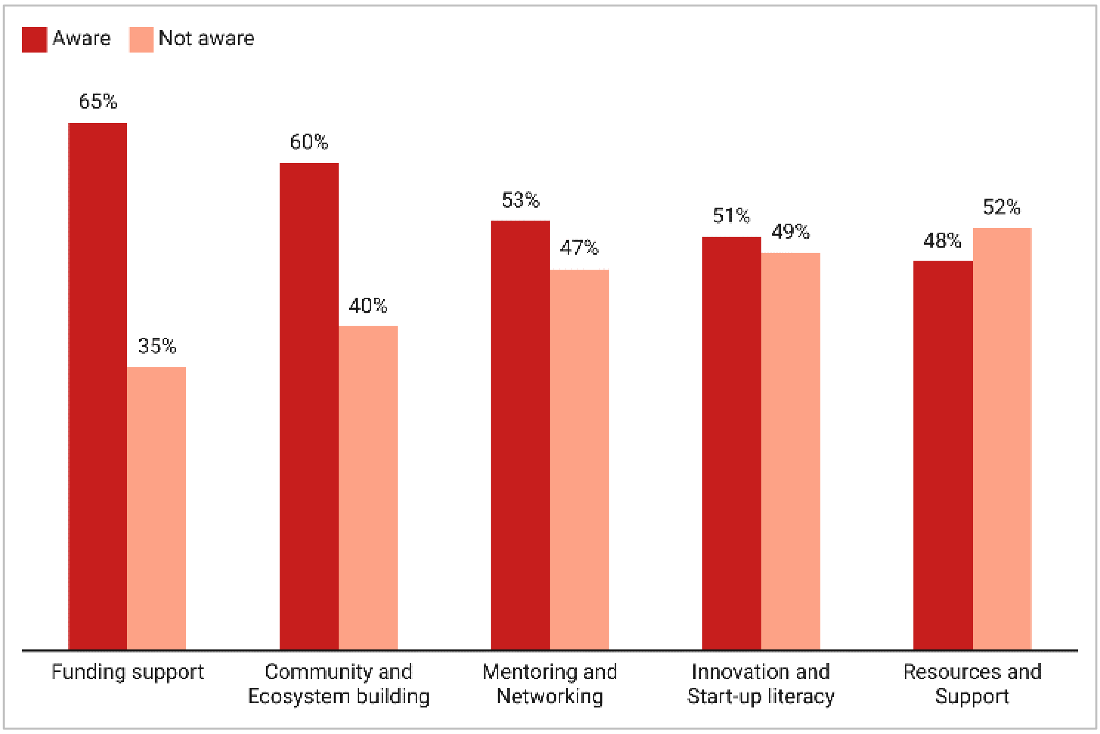
HIGHLIGHTS
▪ There is a significant awareness gap for government schemes, with funding support (65 percent) and community-building initiatives (60 percent) achieving moderate visibility, while fewer than half of start-ups (48 percent) are aware of available resources and support services.   ▪ A striking gap exists between awareness and utilisation across all StartupTN initiatives, with only 17-23 percent of aware start-ups actually accessing these programs, suggesting substantial barriers beyond mere information dissemination.

HIGHLIGHTS
▪ TANSEED (27 percent) and TANFUND (26 percent) demonstrate the highest access rates across all initiatives, yet even for these better-performing funding programs, nearly three-quarters of aware start-ups have not accessed these critical financial resources. ▪ Within community building initiatives, flagship events like Startup Tiruvizha (31 percent access rate) and Startup Tamizha (22 percent) show higher engagement than specialised Sectoral Forums (15 percent), indicating general events attract more participation than industry-specific opportunities. ▪ Support services show vastly different utilisation rates, with immediately useful resources like Smart Card and Helpline services (both 25 percent) performing significantly better than more intensive programs like StartupTN Catalyst (9 percent), suggesting start-ups prioritise resources with lower barriers to entry.

6.1.1 Awareness of government schemes and initiatives

Analysis of the data reveals varying levels of awareness across the five categories of StartupTN schemes and initiatives (Figure 6.1). While funding and community-building initiatives have achieved moderate visibility, there is a significant awareness gap regarding skill development and practical resource programs that are essential for start-up sustainability and growth. Funding support programs demonstrate the highest awareness level at 65 percent, likely due to start-ups' critical need for capital resources and their constant search for various funding sources. Community and ecosystem building initiatives follow closely at 60 percent awareness, indicating relatively successful outreach for collaborative programs.

However, the data shows a concerning downward trend in awareness levels for other crucial support categories, with mentoring and networking at 53 percent, innovation and start-up literacy at 51 percent, and resources and support programs falling below the halfway mark at just 48 percent awareness.



N: All respondents = 422

Figure 6.1: Awareness levels across the five categories of StartupTN schemes and initiatives

Funding Support

The Funding Support category maintains relatively strong awareness levels across all initiatives, with TANSEED leading at 69 percent, followed by the TN SC and ST Startup Fund (65 percent) and TANFUND (61 percent). This consistently higher awareness likely reflects start-ups' prioritisation of financial resources, though it's notable that even these critical funding mechanisms remain unknown to over a third of respondents.

Community and Ecosystem Building

Within the Community and Ecosystem building category, there is strong awareness of flagship events with Startup Tamizha (71 percent) and Startup Tiruvizha (70 percent), with high visibility among start-ups. However, a sharp decline is evident with Sectoral Forums at only 40 percent awareness, revealing that while general community events gain traction, more specialised sector-specific networking opportunities remain largely undiscovered by the majority of start-ups.

Mentoring and Networking

The Mentoring and Networking category shows consistent but moderate awareness levels, with both MentorTN and AngelsTN at 53 percent. This indicates that nearly half of all start-ups remain unaware of these valuable guidance and connection opportunities that could significantly impact their growth trajectory and success.

Innovation and Start-up Literacy

A clear gradient appears in the Innovation and Start-up Literacy category, with Hackathons garnering 60 percent awareness while more specialised infrastructure like

Innovate TN – FabLabs (47 percent) and the Open Innovation Portal (45 percent) struggle to reach the majority of start-ups.

Resources and Support

The Resources and Support category demonstrates the lowest overall awareness levels, with only the Smart Card initiative (53 percent) recognized by more than half of the respondents. Critical support mechanisms, including Accelerator Programs (49 percent), StartupTN Catalyst (47 percent), Helpline (47 percent), and Venture Lab (43 percent), remain unknown to the majority of start-ups.

N: All respondents = 422

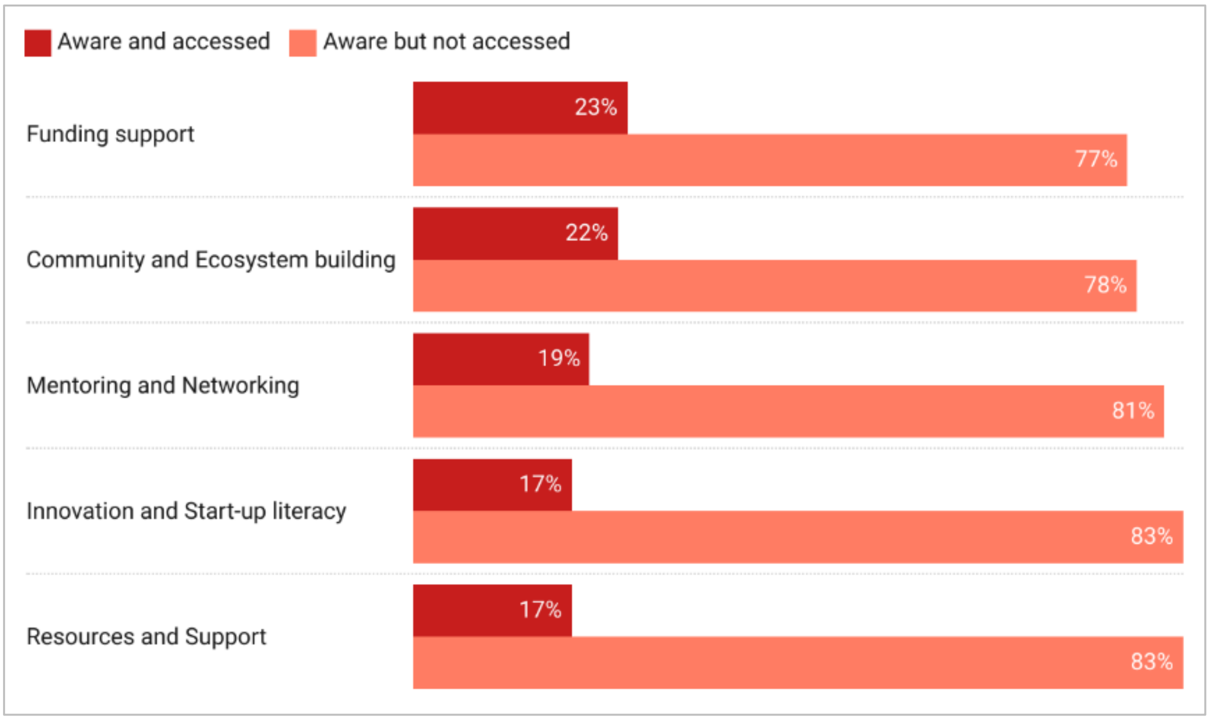
Figure 6.2: Awareness levels of StartupTN schemes and initiatives within the five categories

6.1.2 Access to government schemes and initiatives

The data reveals a striking gap between awareness and actual utilisation across all categories of StartupTN initiatives. Funding Support shows the highest access rate at 23 percent, meaning that while 65 percent of start-ups are aware of these programs (Refer Figure 6.3), less than a quarter of those aware start-ups have accessed these resources. This suggests that despite funding being a critical need, significant barriers exist between awareness and utilisation of available financial support mechanisms. Further, despite strong awareness of flagship events like Startup Tamizha and Startup Tiruvizha (71 percent and 70 percent respectively from Figure 6.2), only about one-fifth of informed start-ups actively participate in these community-building opportunities.

Mentoring and Networking programs show a lower access rate of 19 percent, highlighting that even fewer start-ups are leveraging these valuable guidance and connection resources despite being aware of them. The lowest access rates appear in both Innovation and Start-up Literacy and Resources and Support categories, each at just 17 percent. This statistic indicates that fewer than one in five start-ups that know about these programs actually utilise them, suggesting substantial barriers to engagement with innovation infrastructure and practical support services.

This consistent pattern across all categories, where awareness substantially exceeds actual access by a margin of approximately 80 percent, points to critical systemic challenges beyond mere information dissemination. The data strongly suggests that awareness alone is insufficient; start-ups face significant obstacles in translating knowledge into action, potentially due to application complexity, eligibility concerns, time constraints, perceived value, or other practical barriers that prevent engagement with available support systems.



N: Respondents who are aware of government schemes and initiatives on start-ups

Figure 6.3: Awareness levels of StartupTN schemes and initiatives within the five categories

Within the categories, the access to schemes and initiatives was analysed and is presented in Figure 6.4.

Funding Support

TANSEED (27 percent) and TANFUND (26 percent) demonstrate relatively stronger access rates compared to other initiatives across all categories, reflecting start-ups' prioritisation of financial resources. However, the TN SC and ST Startup Fund shows a dramatically lower access rate at just 13 percent. Even for the better-performing funding

programs, nearly three-quarters of aware start-ups have not accessed these critical financial resources.

Community and Ecosystem Building

Within this category, Startup Tiruvizha shows the highest conversion from awareness to access at 31 percent, suggesting its format or value proposition resonates most effectively with start-ups. Startup Tamizha follows at 22 percent, while Sectoral Forums lag significantly at just 15 percent access among aware start-ups. This shows that while general community events attract participation, specialised industry forums face greater barriers to engagement despite their potential targeted value.

Mentoring and Networking

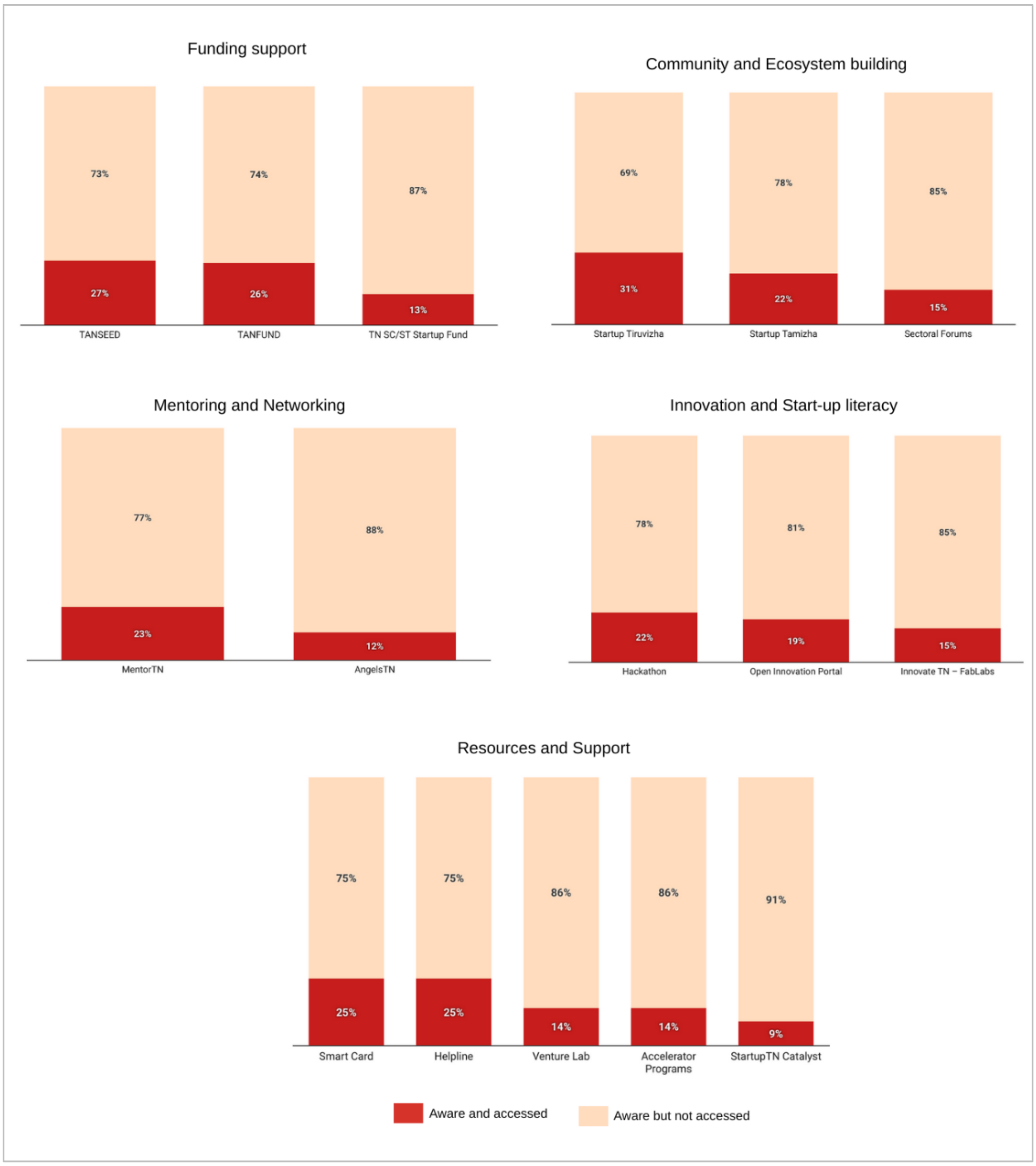
MentorTN achieves a 23 percent access rate among aware start-ups, nearly double that of AngelsTN at just 12 percent. This significant disparity suggests that while general mentorship appeals to early-stage start-ups, angel investor connections may be perceived as relevant only to a smaller subset of investment-ready ventures or may involve more stringent qualification criteria.

Innovation and Start-up Literacy

Hackathons lead this category with a 22 percent access rate, while the Open Innovation Portal (19 percent) and Innovate TN – FabLabs (15 percent) show decreasing engagement levels. This suggests that competition-based formats drive higher participation than self-directed innovation resources, possibly due to their structured nature and clearer value proposition.

Resources and Support

Smart Card and Helpline services both show 25 percent access rates, likely due to their immediate utility and lower barriers to entry. In stark contrast, Venture Lab and Accelerator Programs (both 14 percent) and particularly StartupTN Catalyst (9 percent) demonstrate critically low engagement.



N: Respondents who accessed government schemes and initiatives on start-ups

Figure 6.4 Awareness and Access levels of StartupTN schemes and initiatives within the five categories

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

6.2. Summary

This chapter examines the awareness and utilisation of StartupTN government schemes and initiatives among start-ups in Tamil Nadu. The findings reveal significant gaps between awareness and actual access across all program categories. Funding support programs achieve the highest awareness at 65 percent, followed by community-building initiatives at 60 percent. However, awareness drops considerably for mentoring and networking (53 percent), innovation and start-up literacy (51 percent), and resources and support services (48 percent). A striking disconnect exists between awareness and utilisation, with only 17-23 percent of aware start-ups actually accessing these programs. This represents an approximately 80 percent gap between knowledge and action across all categories. Within funding support, TANSEED (27 percent access rate) and TANFUND (26 percent) show the highest utilisation rates, though still leaving three-quarters of aware start-ups unserved. Community events like Startup Tiruvizha (31 percent access) and Startup Tamizha (22 percent) outperform specialised Sectoral Forums (15 percent). The data suggests substantial systemic challenges beyond information dissemination, including potential issues with application complexity, eligibility concerns, time constraints, and perceived value. Support services with lower barriers to entry, such as Smart Card and Helpline services (both 25 percent access), perform better than intensive programs like StartupTN Catalyst (9 percent).

The findings highlight the need for addressing structural barriers that prevent start-ups from translating awareness into meaningful engagement with available support systems.

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

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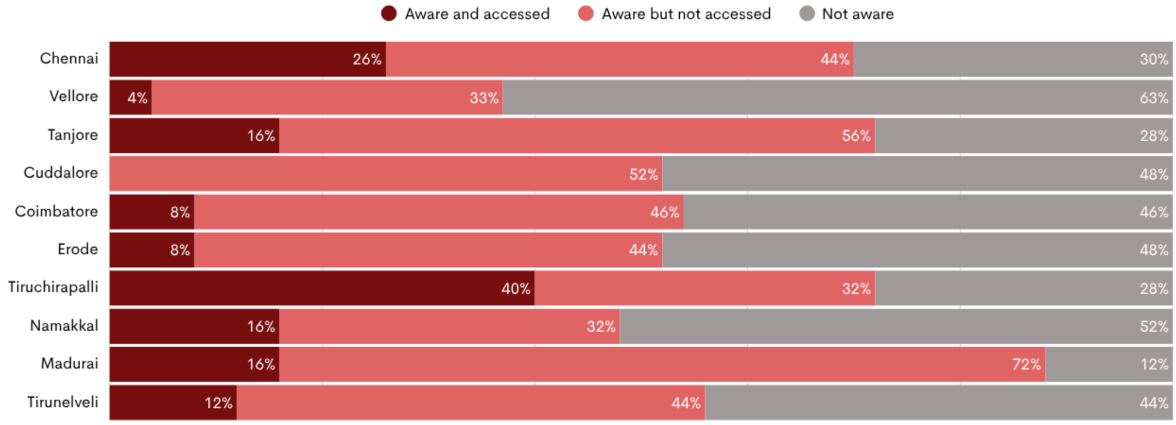
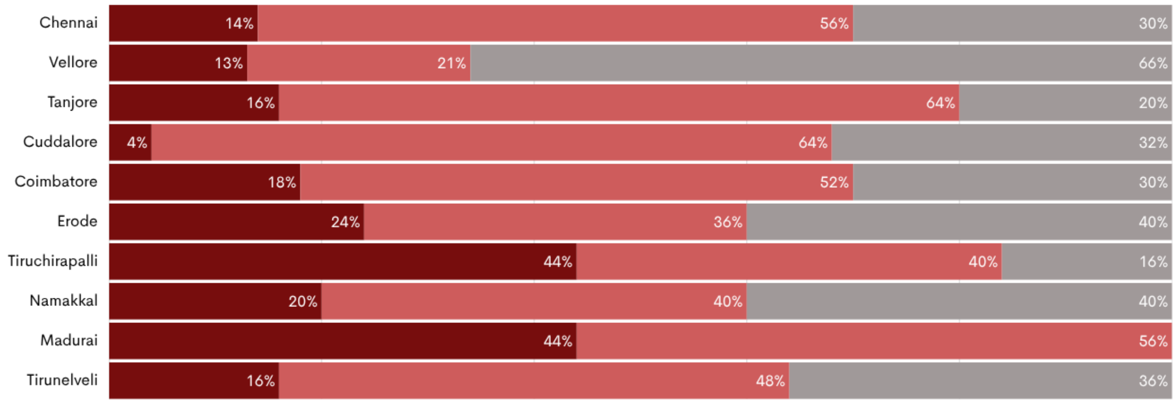
REGIONAL TRENDS

GOVERNMENT SCHEMES AND INITIATIVES: Funding Support

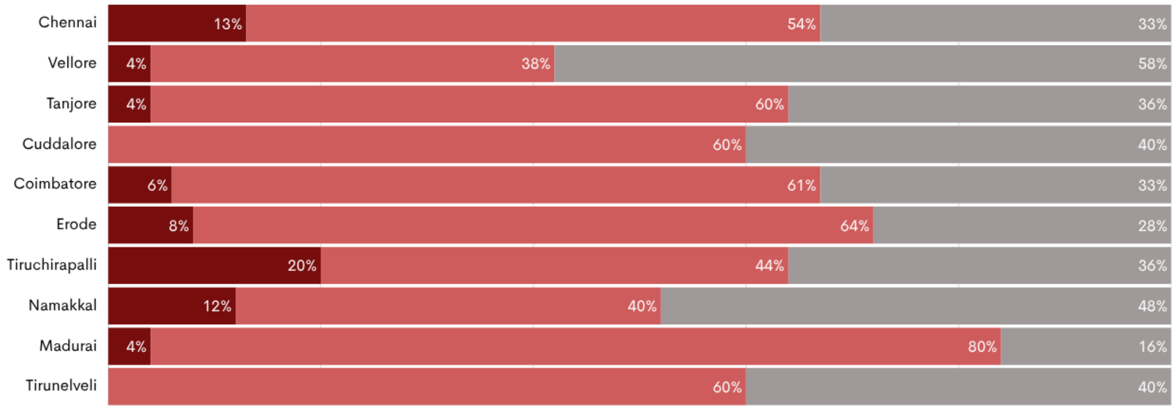
TANFUND



TANSEED

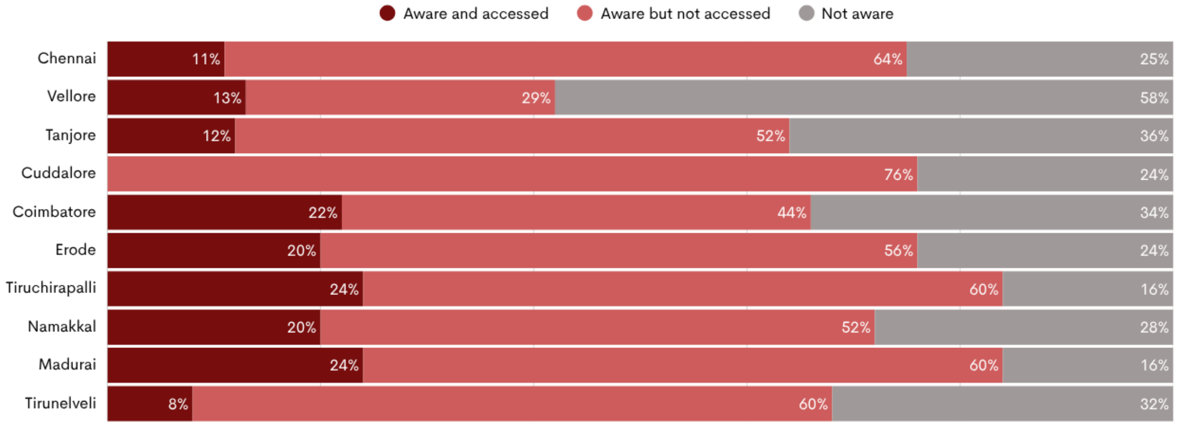


TN ST AND SC STARTUP FUND

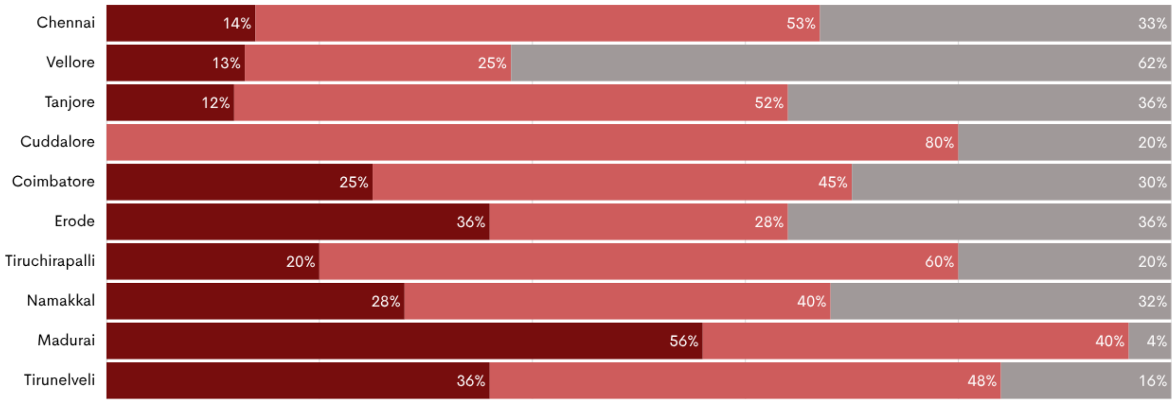


REGIONAL TRENDS
GOVERNMENT SCHEMES AND INITIATIVES: Community and Ecosystem Building

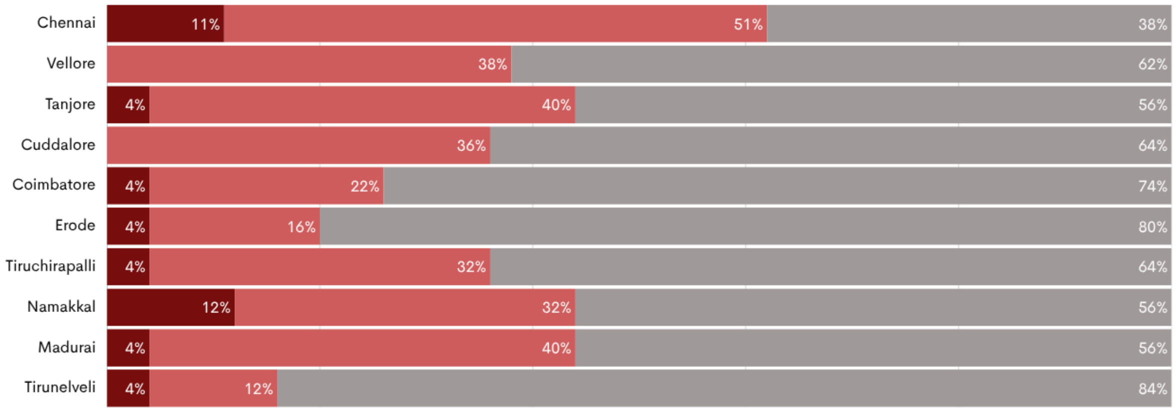
STARTUP TAMIZHA



STARTUP THIRUVIZHA



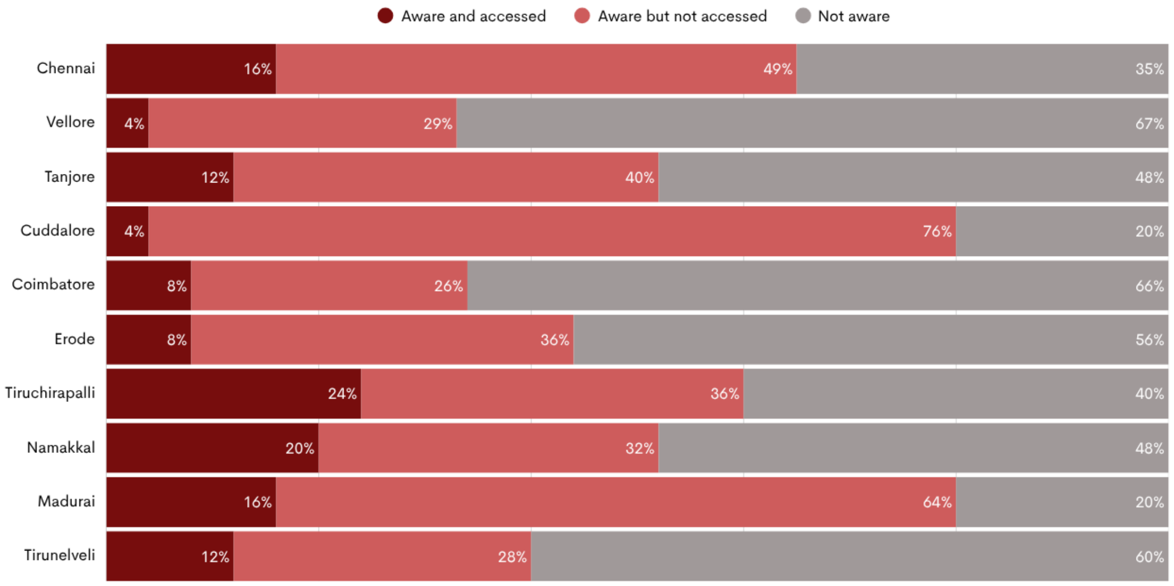
SECTORAL FORUMS



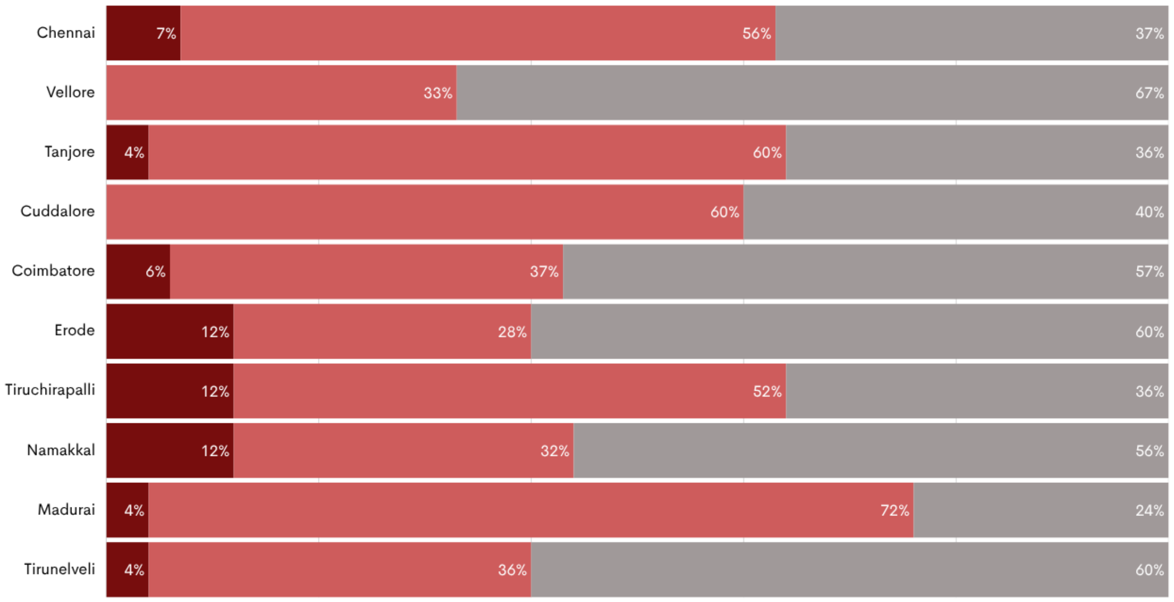
REGIONAL TRENDS

GOVERNMENT SCHEMES AND INITIATIVES: Mentoring and Networking

MENTORTN

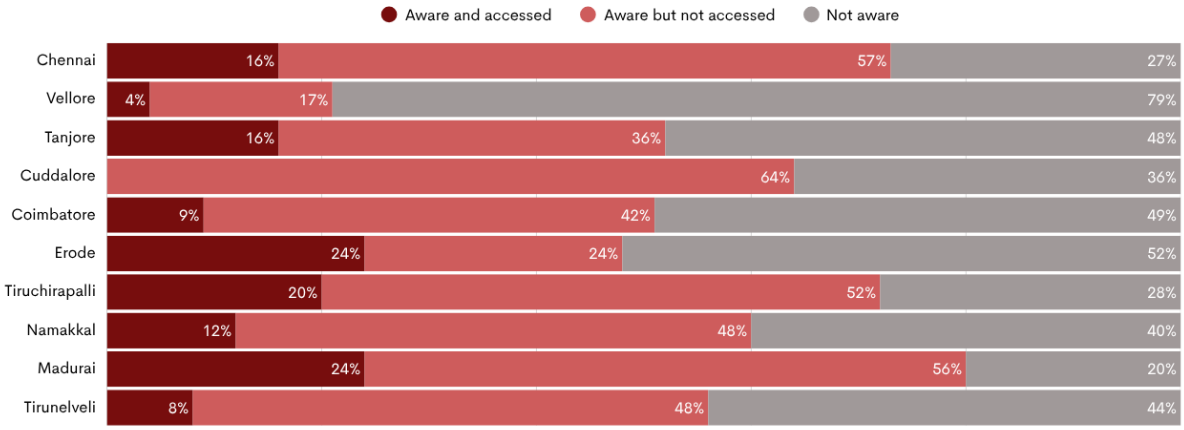


ANGELSTN

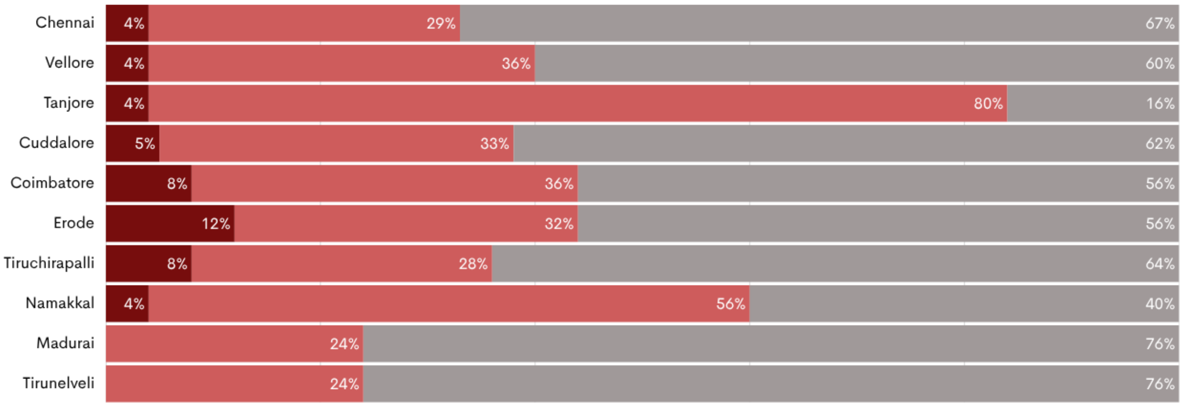


REGIONAL TRENDS
GOVERNMENT SCHEMES AND INITIATIVES: Innovation and Start-up Literacy

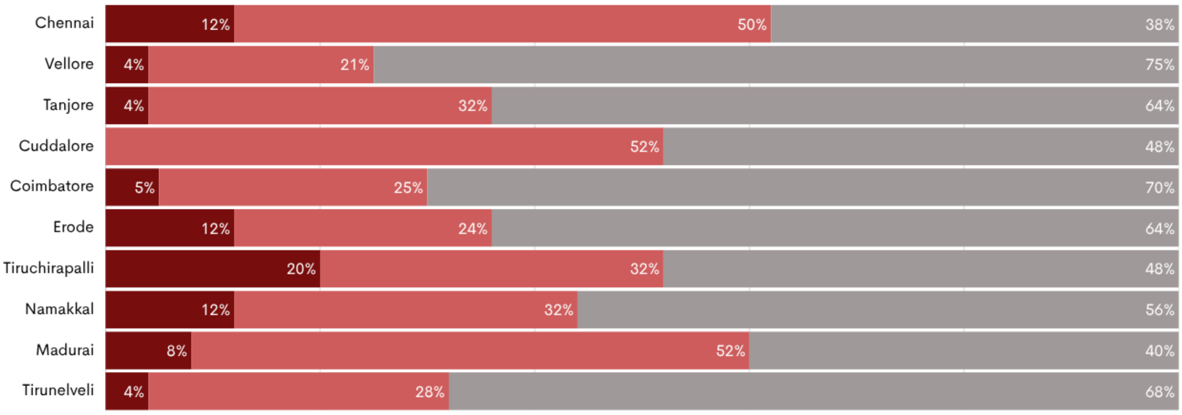
HACKATHON



INNOVATE-TN FABLABS

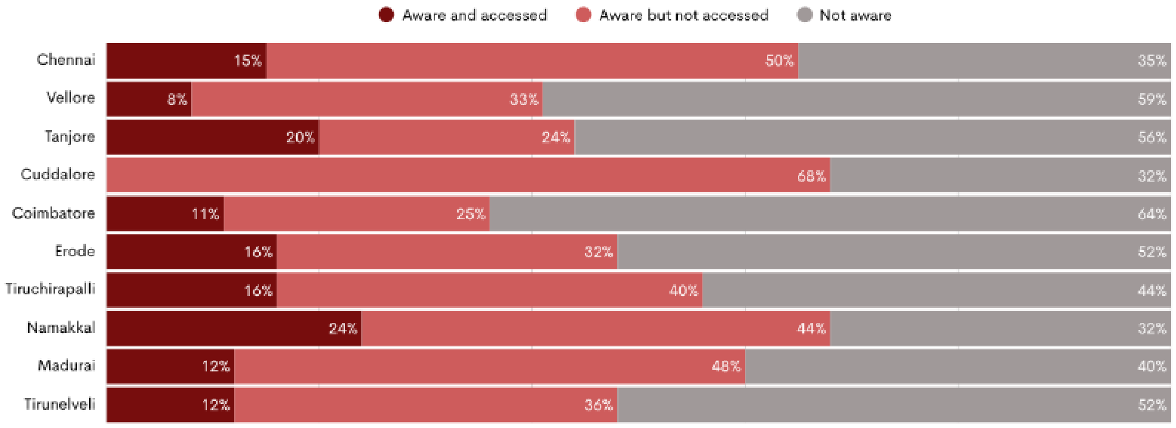


OPEN INNOVATION PORTAL

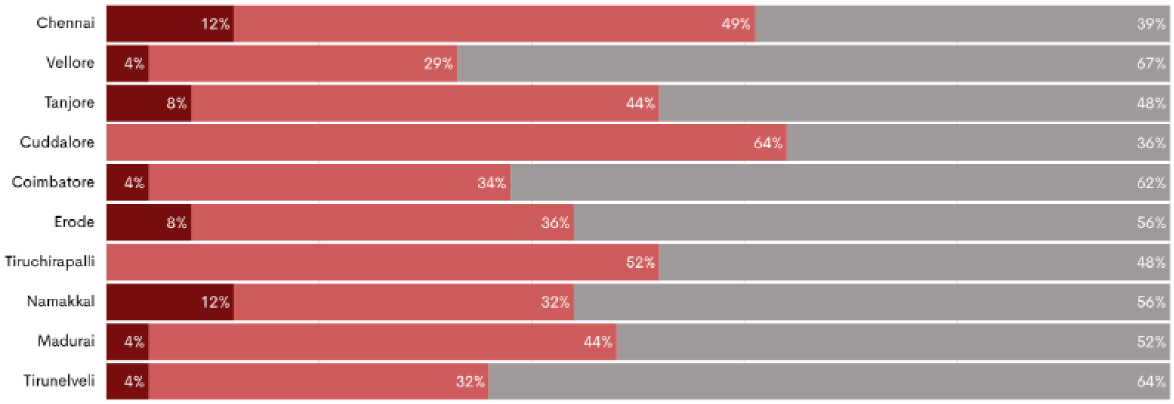


REGIONAL TRENDS
GOVERNMENT SCHEMES AND INITIATIVES: Resources and Support

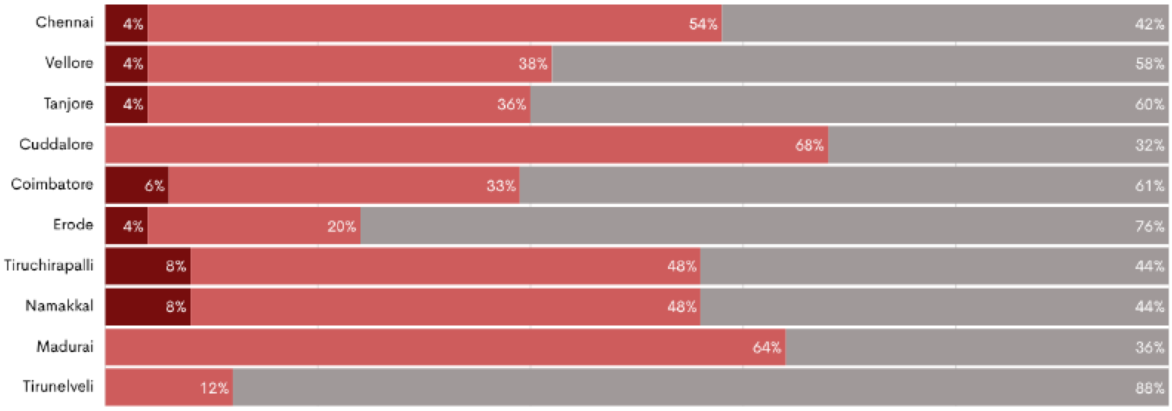
SMART CARD



ACCELERATOR PROGRAMS



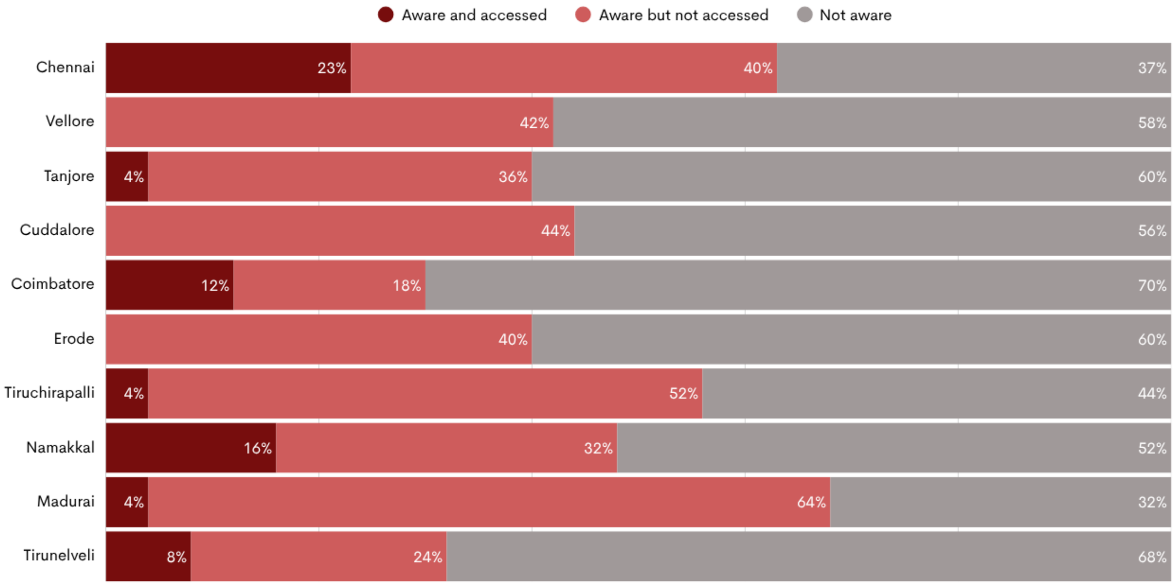
STARTUPTN CATALYST



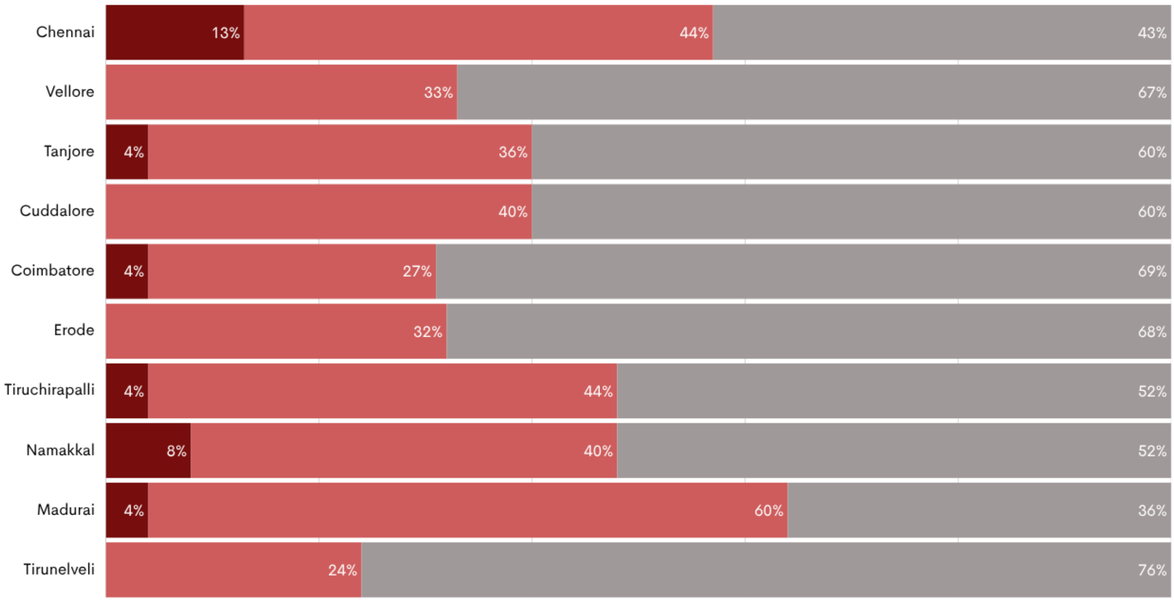
REGIONAL TRENDS

GOVERNMENT SCHEMES AND INITIATIVES: Resources and Support

HELPLINE



VENTURE LAB



Chapter 7

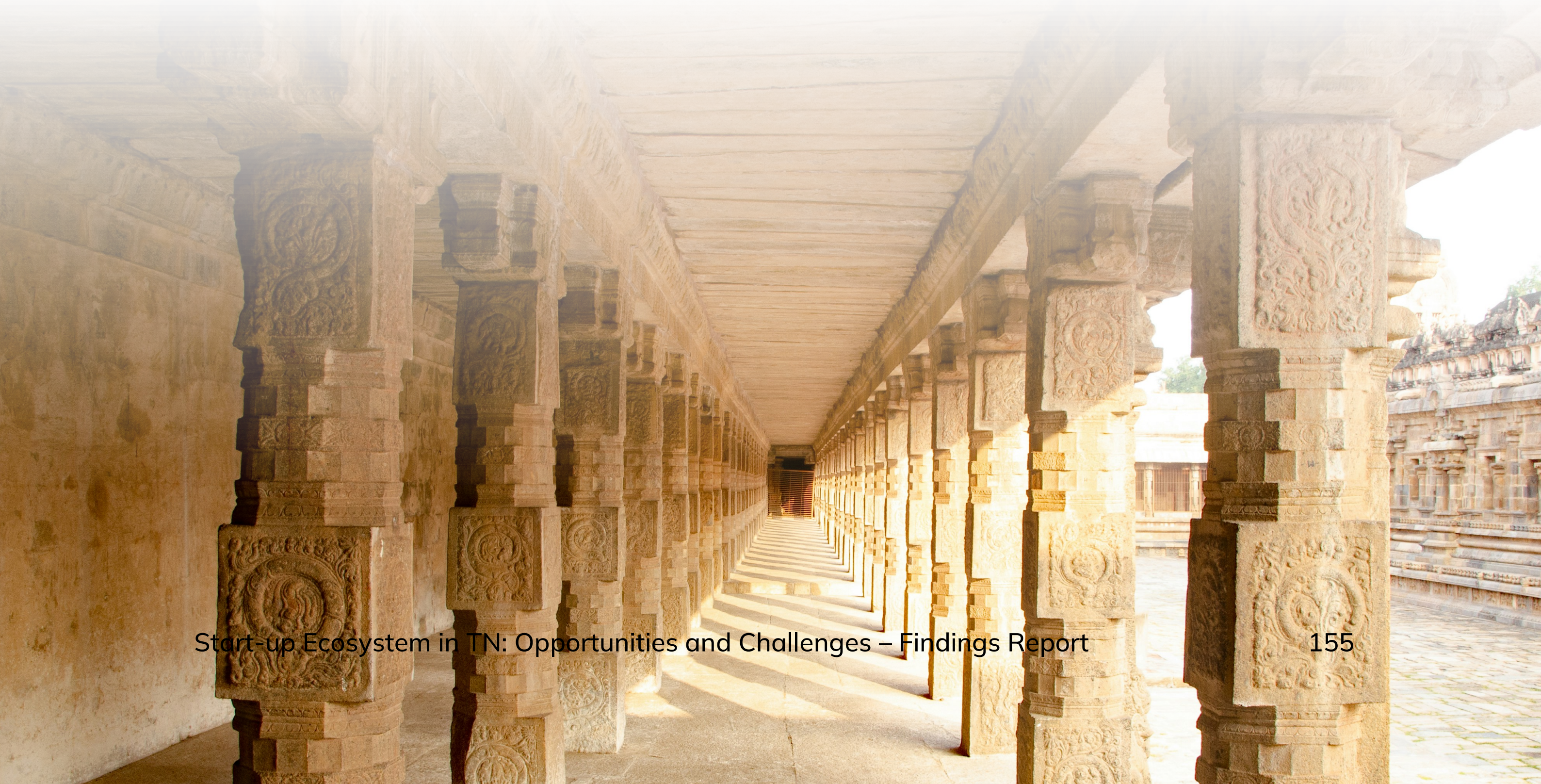
Market Access and Skilled Talent

தொட்டனைத்து ஊறும் மணற்கேணி மாந்தர்க்குக்
கற்றனைத்து ஊறும் அறிவு. (Tirukkural 396)

As water flows from a well when dug, so does wisdom flow from learning.

This chapter presents the findings on the opportunities availed and the challenges faced by start-ups concerning market access, with particular focus on public procurement, and skilled talent. The analysis examines three key dimensions: awareness of public procurement opportunities, participation rates among eligible start-ups, and challenges encountered during the application process. By integrating quantitative data from the survey with qualitative insights from focus group discussions, this chapter provides a comprehensive assessment of how effectively start-ups can navigate government procurement systems, identify available opportunities, and overcome procedural barriers.

Access to skilled talent represents a critical success factor for start-ups and healthy entrepreneurial ecosystems. The study examined this dimension through both quantitative and qualitative methods. Founders, through surveys, were assessed on their perceptions of the local talent landscape, while focus group discussions provided deeper insights into talent-related challenges and opportunities.



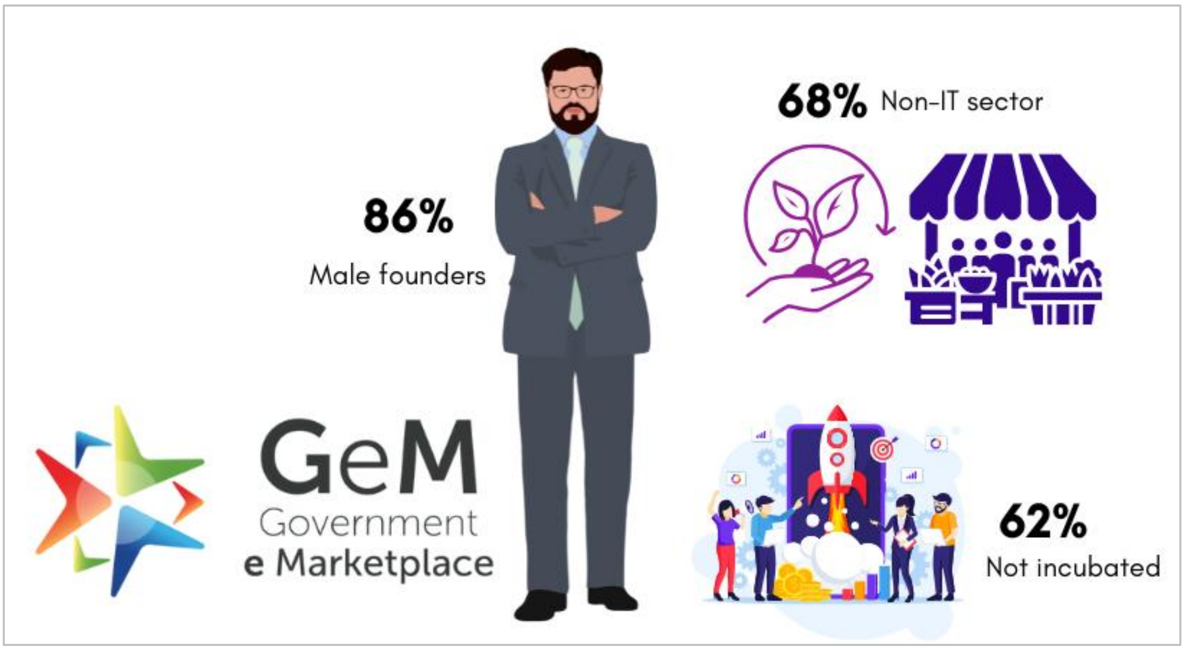
7.1 Market Access - Public Procurement

7.1.1 Opportunities availed

HIGHLIGHTS
▪ Significant gender disparity exists in GeM portal registration, with male founders vastly outnumbering female founders. ▪ This disparity extends to procurement participation, where the majority of participants are male-led start-ups, and success rates show male founders significantly outperforming female founders. ▪ Traditional businesses engage more with government procurement than tech ventures, evidenced by higher GeM registration rates among non-IT start-ups compared to IT start-ups. ▪ Similarly, non-IT start-ups demonstrate higher procurement participation and success rates than their IT counterparts. ▪ There's a notable difference in participation between business types, with service-oriented ventures, manufacturing, and product-based businesses dominating public procurement engagement. ▪ Contrary to expectations, non-incubated start-ups show higher registration rates than incubated ones, suggesting start-ups without institutional support may be more actively seeking government contracts as alternative revenue streams. ▪ Beyond immediate financial benefits, start-ups value public procurement for strategic advantages: providing new market opportunities, creating equal competitive conditions, and enhancing start-up reputation and credibility.

7.1.2 Government e-Marketplace (GeM) portal registration

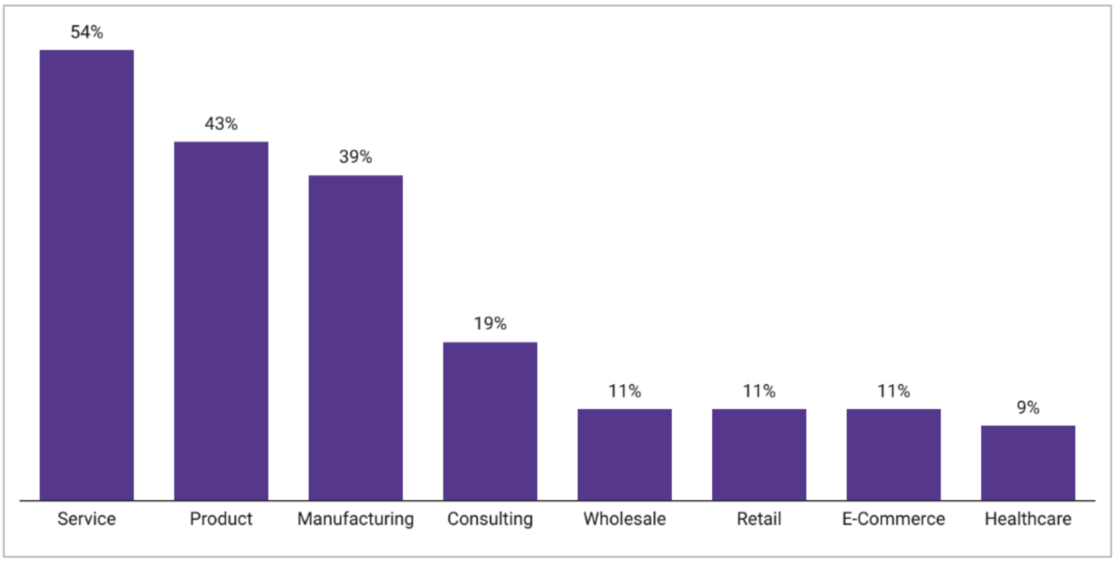
The survey data reveals interesting patterns regarding Government e-Marketplace (GeM) portal registration among start-ups (Refer Figure 7.1). While only 30 percent of all respondents (122 start-ups) have registered on GeM, this group is overwhelmingly dominated by male founders (86 percent), suggesting a significant gender disparity in accessing government procurement opportunities. The substantial difference between non-IT (68 percent) and IT sector start-ups (32 percent) indicates that traditional businesses may find more relevant procurement opportunities on the platform than technology ventures. Perhaps most revealing is that non-incubated start-ups (62 percent) are significantly more likely to register than incubated ones (38 percent), potentially indicating that start-ups without institutional support are more actively seeking government contracts as alternative revenue sources.



N: Start-ups registered on the GEM portal = 122

Figure 7.1: Profile of surveyed start-ups that have registered on the GEM portal

The GeM portal registration across different business types reveals that registration is substantially more prevalent among businesses offering tangible services (54 percent), products (43 percent), or manufacturing capabilities (39 percent) to government entities (Figure 7.2). Specialised sectors like consulting (19 percent), e-commerce (11 percent), retail (11 percent), and healthcare (9 percent) face either lower participation, fewer relevant opportunities, or additional barriers to government procurement participation.



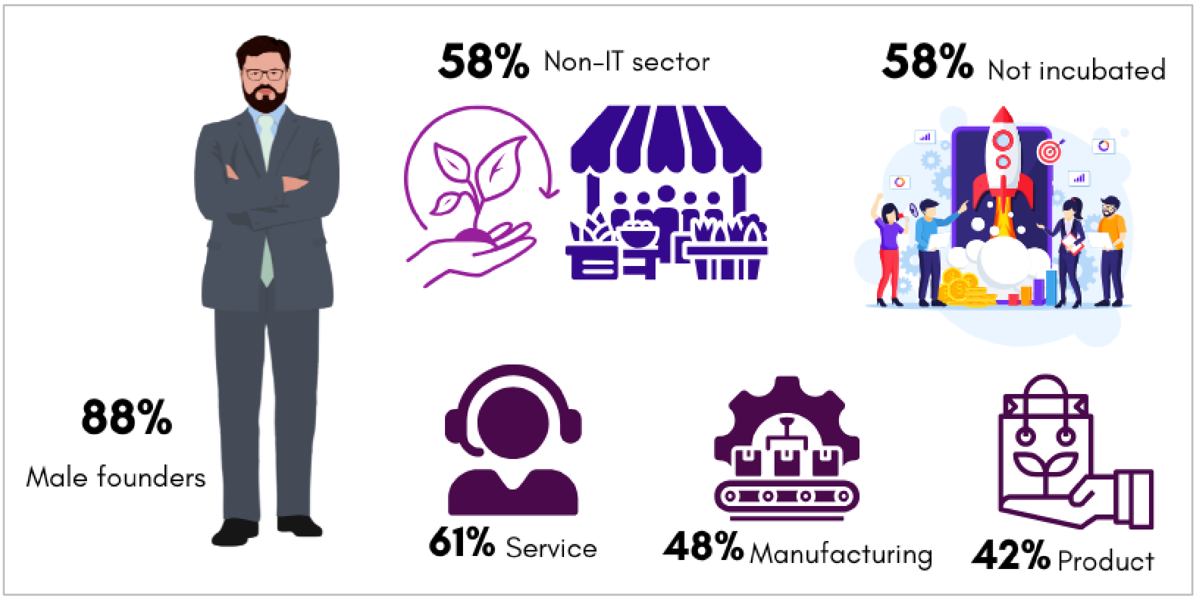
N: Start-ups registered on the GEM portal = 122

Note: Total exceeds 100 percent due to multiple responses

Figure 7.2: Distribution of start-ups that have registered on the GEM portal by business type

7.1.2 Participation in any public procurement tenders or initiatives

The public procurement data reveals a selective engagement pattern among surveyed start-ups (Figure 7.3). Despite having GeM portal registration, only about 27 percent (33 of 122 registered start-ups) have participated in public procurement opportunities, with a pronounced gender disparity showing 88 percent male founder participation versus just 12 percent female founders. Non-IT start-ups (58 percent) demonstrate greater public procurement activity than their IT counterparts (42 percent), mirroring the same ratio between non-incubated (58 percent) and incubated start-ups (42 percent), indicating that they see a greater market potential in government contracts than their technology-focused or institutionally-supported counterparts. When examining business types, service-oriented ventures dominate participation at 61 percent, followed by manufacturing (48 percent) and product-based businesses (42 percent). There's a significant drop-off to consulting firms (18 percent), while e-commerce (9 percent), wholesale (6 percent), retail (6 percent), and healthcare (3 percent) show minimal engagement. This distribution suggests public procurement participation is heavily concentrated among service providers and product manufacturers, with traditional businesses outperforming technology ventures.



N: Start-ups that have participated in public procurement = 33

Figure 7.3: Profile of start-ups that have participated in public procurement

7.1.3 Public procurement tender application and success rates

The public procurement tender application and success rates across different start-up demographics are presented in Table 7.1 below. The majority of founders, regardless of gender or start-up category, apply for a small number of tenders (1-3), with males (66 percent), IT start-ups (71 percent), and incubated start-ups (64 percent) showing the highest percentages in this bracket. However, female founders show a more distributed application pattern, with 25 percent each in the 4-6 and "more than 10" categories, suggesting that when women entrepreneurs engage with public procurement, a significant portion does so intensively.

When examining success rates, male founders significantly outperform female founders, with 65 percent of males winning at least one tender compared to only 25 percent of females. Similarly, non-IT start-ups demonstrate markedly higher success rates (42 percent winning at least one tender) than IT start-ups (29 percent). Interestingly, incubation status appears to have minimal impact on tender success, with non-incubated start-ups showing a marginally better win rate (37 percent) than incubated ones (36 percent).

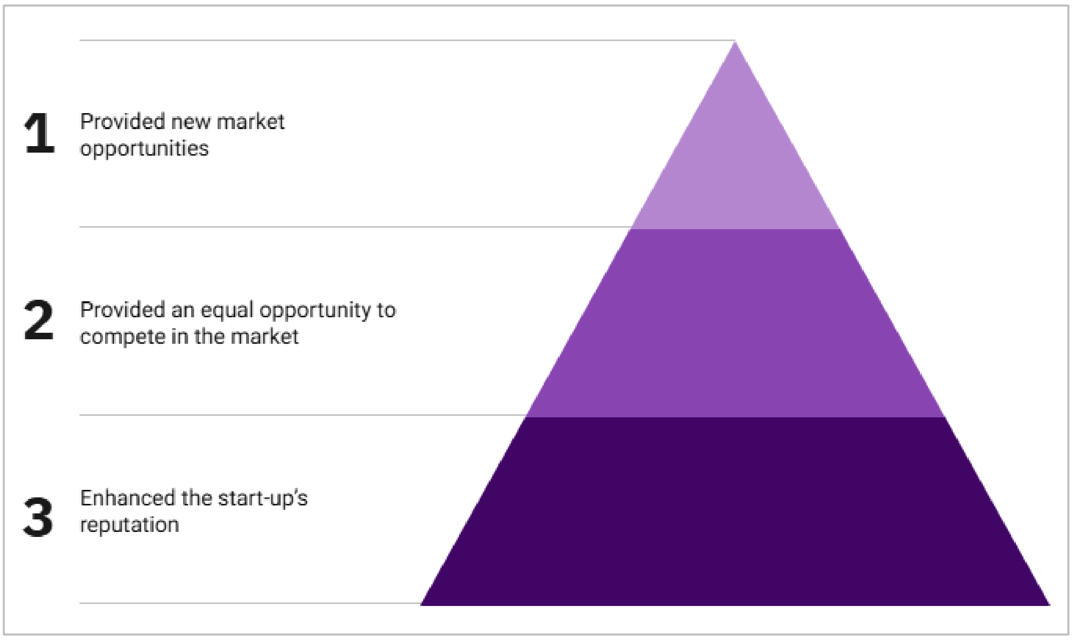
Characteristics	Number of tenders applied				No. of tenders won	
	1-3	4-6	7-10	> 10	None	1 or more
Male	66%	17%	7%	10%	34%	66%
Female	50%	25%	0%	25%	75%	25%
IT	71%	14%	7%	7%	71%	29%
Non-IT	58%	21%	5%	16%	58%	42%
Incubated	64%	21%	7%	7%	64%	36%
Not incubated	63%	16%	5%	16%	63%	37s%

N: Start-ups that have participated in public procurement = 33

Table 7.1: Public procurement application and success rates

7.1.4 Public procurement's impact on start-ups

Start-ups view public procurement not just as a revenue stream but as a strategic platform for market access, competitive positioning, and brand legitimacy. Founders identified "providing new market opportunities" as the most significant advantage, suggesting that government contracts serve as crucial entry points into previously inaccessible markets or customer segments. The second most valued benefit, "providing an equal opportunity to compete in the market," highlights how public procurement can create a more level playing field where start-ups can compete alongside established players, potentially circumvent traditional market barriers or entrench competitive disadvantages. The third position, "enhanced start-up reputation", demonstrates how securing government contracts provides valuable credibility and validation that extends beyond the immediate financial value of the contract itself. This reputational boost can catalyse future growth by strengthening the start-up's position with private sector clients, investors, and other stakeholders.



N: Start-ups that have participated in public procurement = 33

Figure 7.4: Top three ways in which public procurement impacted the start-up

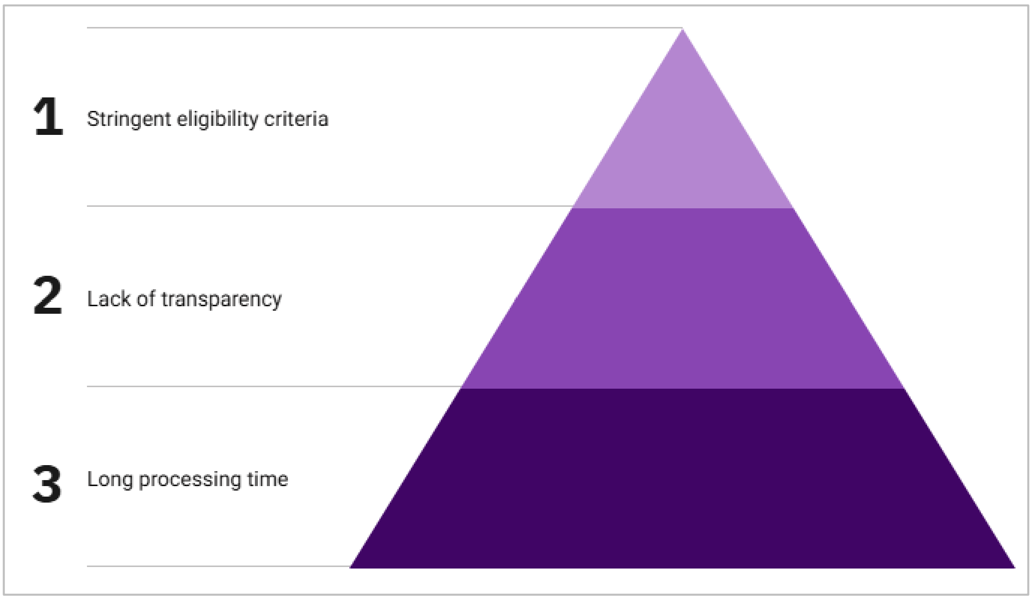
7.1.2 Challenges faced

Highlights
▪ Stringent eligibility criteria top the list of barriers during tender application, favouring established companies with longer track records and greater resources. ▪ Limited awareness about procurement opportunities is a major issue, with many founders simply unaware of the Government e-Marketplace (GeM) portal and its potential benefits for their business, creating a significant information gap. ▪ Many start-ups perceive public procurement as "not applicable to our business," indicating either a genuine mismatch or a misconception about the diverse range of products and services sought through government contracts, which is further compounded by concerns about low success rates and lengthy processes.

7.1.2.1 Challenges faced by start-ups during the public procurement tender application process

The data on challenges faced during public procurement tender processes reveals significant structural barriers that limit start-up participation and success (Figure 7.5). "Stringent eligibility criteria" emerged as the primary obstacle, suggesting that qualification requirements often favour established companies with longer track records and greater resources, effectively excluding many innovative ventures from participation. The second-ranked challenge, "lack of transparency," indicates founders struggle with opaque decision-making processes and unclear evaluation standards, making it difficult to understand how to improve future applications or whether competition is truly fair.

Completing the top three, "long processing time" highlights how extended procurement cycles create financial strain on cash-sensitive start-ups that cannot sustain operations through lengthy waiting periods without revenue certainty. Together, these challenges suggest that despite the potential benefits of public procurement, the current system's structure remains misaligned with the realities of start-up operations, demanding established business credentials from emerging ventures, obscuring the path to success.



N: Start-ups that have participated in public procurement = 33

Figure 7.5: Top three challenges faced by start-ups during the public procurement application process

7.1.2.2 Reasons why start-ups did not register their start-up on the Government e-Marketplace (GeM) portal

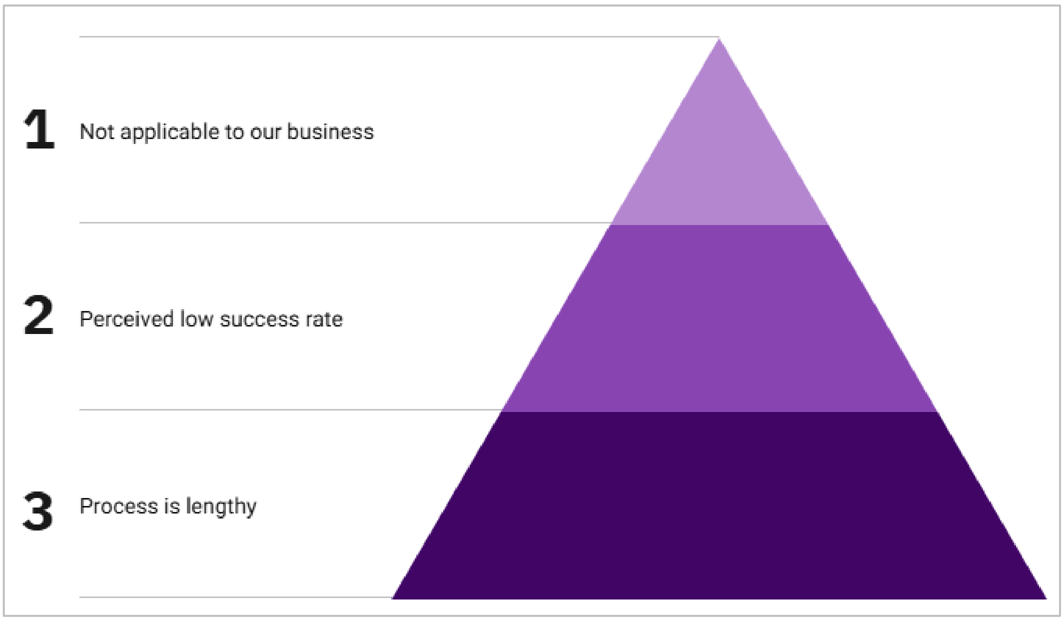
The data on why start-ups avoid the Government e-Marketplace (GeM) portal reveals fundamental awareness and accessibility issues hindering wider adoption (Figure 7.6). "Not aware" ranking as the primary reason points to a significant information gap, indicating that many founders simply don't know about this government procurement opportunity or its potential benefits for their business. The second-ranked challenge, "process is lengthy," suggests that even when start-ups are informed about GeM, the registration requirements and procedures are perceived as too time-consuming for resource-constrained entrepreneurs who must prioritise immediate business needs. The third reason, "not applicable to our business," indicates a perceived relevance problem, with many founders believing their products or services don't align with government procurement needs or that their business model is incompatible with government contracting. These findings highlight the need for better outreach efforts about GeM opportunities, streamlined registration processes tailored to start-up capabilities, and clearer communication about the diverse range of products and services sought through government procurement that might surprise founders who have prematurely dismissed its relevance to their ventures.

N: Start-ups that did not register on the GeM portal = 300

Figure 7.6: Top three reasons why start-ups that did not register on the GeM portal

7.1.2.3 Reasons why start-ups did not participate in any public procurement tenders or initiatives

The data on why start-ups avoid participating in public procurement tenders reveals a pattern of perceived barriers to entry and return on investment concerns (Figure 7.7). The primary reason, "not applicable to our business," indicates a fundamental disconnect where many founders don't see alignment between their offerings and government needs, suggesting either a genuine mismatch or a possible misconception about the diverse range of products and services sought through public procurement. The second reason, "perceived low success rate," points to a credibility issue where founders believe the effort involved in applying won't be justified by realistic chances of winning contracts, perhaps reflecting stories of failed attempts or perceptions of bias toward established companies. Completing the top three, "process is lengthy" highlights how the extended timelines of government procurement clash with the rapid operational tempo and limited runway of start-ups, making the wait for potential revenue prohibitively expensive in terms of time and resources. Together, these barriers suggest that public procurement participation is hampered by a combination of information gaps about applicable opportunities, skepticism about fair competition, and practical concerns about process efficiency, all of which disproportionately impact resource-constrained start-ups compared to larger, more established companies.



N: Start-ups that did not participate in public procurement = 89

Figure 7.7: Top three reasons why start-ups did not participate in public procurement

7.2. Skilled Talent

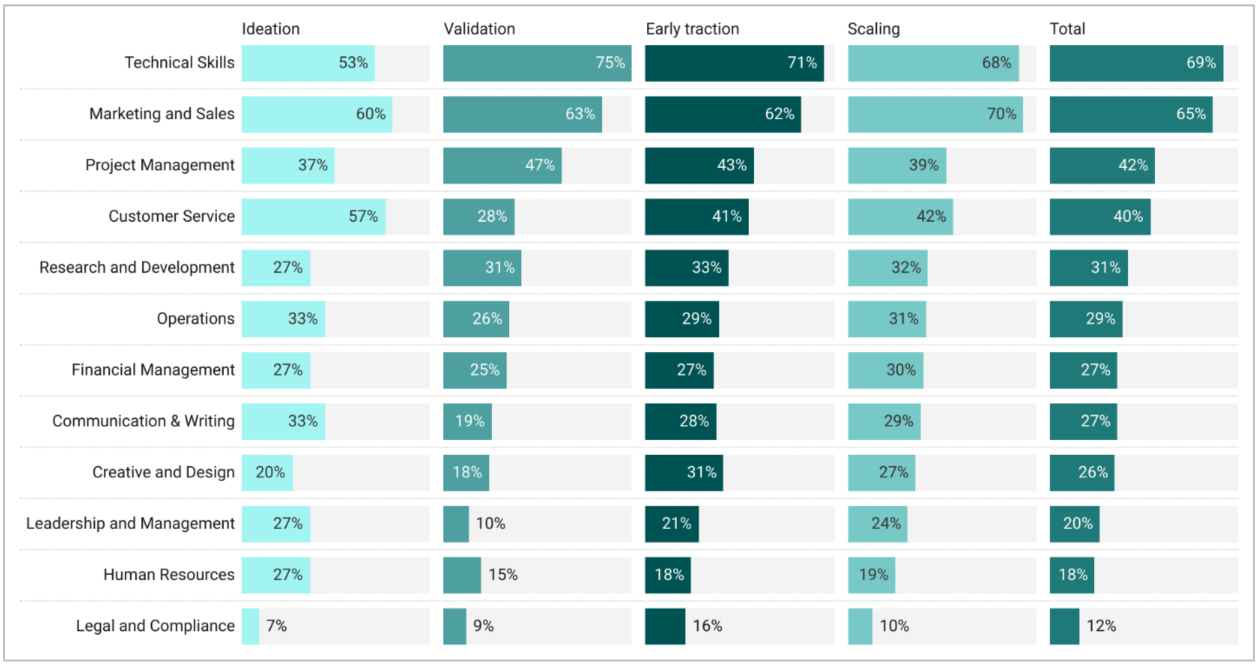
Highlights
▪ Technical Skills and Marketing and Sales emerge as the most critical competencies across all start-up growth stages, highlighting the dual importance of product development and market penetration capabilities. ▪ There's a positive correlation between the start-up growth stage and perceived talent availability in Tamil Nadu. Positive sentiment (Agree/Strongly Agree) increases from just 17 percent among start-ups in the ideation stage to 33 percent among start-ups in the scaling stage, suggesting established start-ups develop better talent acquisition capabilities over time. ▪ Early-stage founders report the greatest difficulty accessing skilled talent, with no Ideation-stage start-ups strongly agreeing that relevant skills are readily available, indicating a critical gap in the ecosystem's support for nascent ventures.

7.2.1 Essential workforce skills required

During the survey start-up, founders were asked to identify essential workforce skills. Figure 7.8 below presents the findings across different growth stages. The consistently high demand for technical skills underscores the technology-driven nature of modern start-ups, regardless of industry.

Technical Skills (69 percent) and Marketing and Sales (65 percent) are consistently the most valued competencies across all stages. Technical Skills are particularly considered crucial by start-ups in the validation stage (75 percent), while Marketing and Sales become increasingly important as start-ups scale (70 percent). Project Management ranks third overall (42 percent), with Customer Service following closely (40 percent). Interestingly, Customer Service is highly prioritised by start-ups in the Ideation stage (57 percent) but drops significantly among start-ups in the validation stage (28 percent). Research and Development (31 percent) and Operations (29 percent) maintain moderate importance across all growth phases.

Financial Management, Communication and Writing, and Creative and Design all hover around similar overall importance (26-27 percent). Leadership and Management (20 percent), Human Resources (18 percent), and Legal and Compliance (12 percent) are generally considered less essential, though their importance tends to increase as start-ups mature, with the exception of Leadership and Management which shows unusually low priority among start-ups in the validation stage (10 percent).



N: All respondents = 422

Figure 7.8: Areas that require essential skills for the workforce

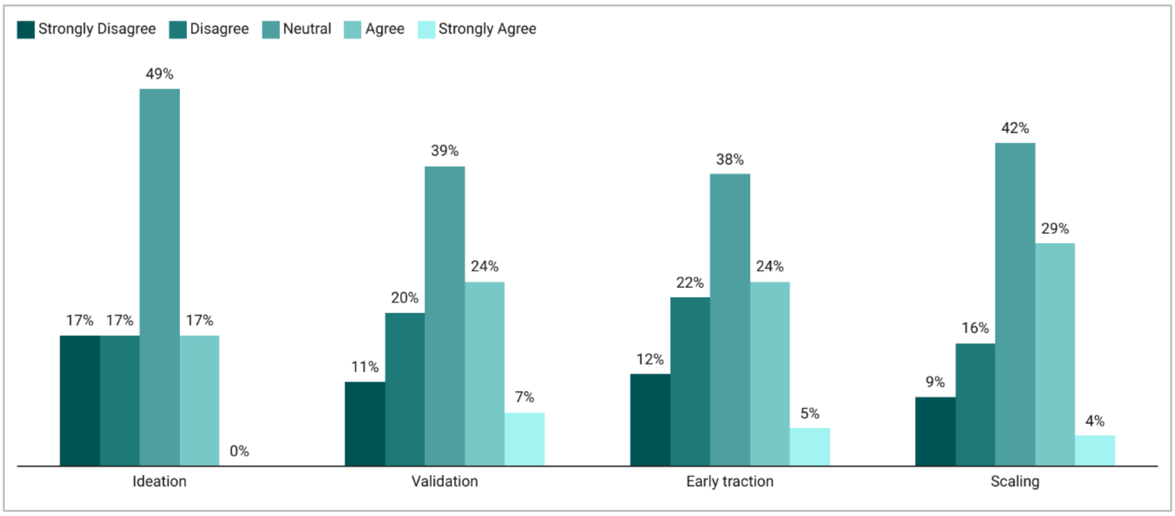
7.2.2 Opinion on the availability of skilled workforce in Tamil Nadu

Founders were asked to rate the statement, “Employees with relevant skill sets are readily available for start-ups in Tamil Nadu” on a rating scale of 5, with 1 as ‘Strongly Disagree’, 2 as ‘Disagree’, 3 as ‘Neutral, 4 as ‘Agree’, and 5 as ‘Strongly Agree’. The data reveals interesting patterns about founder perceptions regarding skilled talent availability in Tamil Nadu across different start-up growth stages as presented in Figure 7.9.

There's a notable trend of increasing positive sentiment as start-ups mature. The combined "Agree" and "Strongly Agree" responses rise from 17 percent among start-ups

in the ideation stage to 31 percent among start-ups in the validation stage, 29 percent among start-ups in early traction, and peak at 33 percent among start-ups in the scaling stage. This suggests that more established start-ups may have developed better recruitment strategies or networks.

Despite the positive trend, a significant portion of founders across all stages express doubt about talent availability. The combined "Disagree" and "Strongly Disagree" responses remain substantial (Ideation = 34 percent; Validation = 31 percent; Early traction = 34 percent; and Scaling = 25 percent). The complete absence of "Strongly Agree" responses among start-ups in the ideation stage is striking, suggesting that very early-stage start-ups face the most significant perceived challenges in finding skilled talent.



N: All respondents = 422

Figure 7.9: Opinion on the availability of skilled workforce in Tamil Nadu

The qualitative findings on Market Access and Skilled Talent are presented in Figures 7.10 and 7.11, respectively.

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

7.3 Summary

Market Access

The findings reveal significant disparities and barriers in start-up participation. Only 30 percent of surveyed start-ups have registered on GeM, with a pronounced gender gap where male founders comprise 86 percent of registrations compared to just 14 percent of female founders. Non-IT start-ups (68 percent) demonstrate higher engagement than IT ventures (32 percent), and surprisingly, non-incubated start-ups show greater participation (62 percent) than incubated ones (38 percent), suggesting those without institutional support actively seek government contracts as alternative revenue streams.

Among registered start-ups, only 27 percent actually participate in procurement opportunities, with service-oriented ventures (61 percent), manufacturing (48 percent), and product-based businesses (42 percent) dominating participation. Success rates favor male founders (65 percent winning at least one tender) over female founders (25 percent), while non-IT start-ups outperform IT counterparts (42 percent vs 29 percent success rates). Start-ups value public procurement for strategic benefits, including new market opportunities, equal competitive conditions, and enhanced reputation. However, significant barriers persist, including stringent eligibility criteria favouring established companies, lack of transparency, lengthy processing times, and limited awareness of opportunities. Many start-ups perceive procurement as "not applicable to their business," indicating either genuine mismatches or misconceptions about government contracting opportunities, highlighting the need for better outreach and streamlined processes.

Skilled Talent

The study identifies Technical Skills (69 percent) and Marketing and Sales (65 percent) as the most essential competencies across all start-up stages, highlighting the dual importance of product development and market penetration capabilities. Technical skills are particularly crucial for validation-stage start-ups (75 percent), while marketing and sales become increasingly important as start-ups scale (70 percent). Project Management (42 percent) and Customer Service (40 percent) rank as moderately important, with customer service being highly prioritised by ideationstage start-ups (57 percent) but dropping significantly among validation-stage ventures (28%). The data reveals a positive correlation between start-up maturity and perceived talent availability, with positive sentiment increasing from just 17 percent among ideation-stage start-ups to 33 percent among scaling-stage ventures. This suggests that established start-ups develop better talent acquisition capabilities and networks over time. However, significant challenges persist, with substantial portions of founders across all stages expressing doubt about talent availability (25-34 percent disagree/strongly disagree). Most critically, no ideation-stage start-ups strongly agree that relevant skills are readily available, indicating a severe gap in ecosystem support for nascent ventures. Early-stage founders face the greatest difficulty accessing skilled talent, suggesting the need for targeted interventions to support talent acquisition in the entrepreneurial ecosystem's foundational stages.

MARKET ACCESS

OPPORTUNITIES

Start-ups are aware of the GeM Portal but reluctant to participate due to lack of peer success stories.

Founders used local networks, family businesses, academic institutions, and exhibitions to reach markets.

Start-ups benefited from government exhibitions, technology subsidies, and trade fairs.

"They (StartupTN) did all those information sessions… but we don't have enough success stories of people benefiting from GeM."

"We found that there was no solution for composting in temples, we started with just five temples and now it's 80."

"I went through StartupTN exhibition, some hospitals showed interest, they are asking for further demo now"

CHALLENGES

Start-ups faced complex documentation, non-intuitive portals, and lack of handholding during vendor registration.

Eligibility criteria such as turnover, prior experience, and EMD prevented start-up participation.

Low trust in government buyers, delayed payments, and minimal visibility created disinterest in public markets.

"They (Government) ask for real experience, how can a start-up have it?"

"Government is seen as a poor paymaster; we know the opportunity is there but are afraid to take it."

"There is a perception that one needs to lobby to get anything done if the Government is involved."

SUGGESTIONS

Start-ups proposed dedicated helpdesks, regional language support, and orientation sessions on GeM.

Suggested relaxation of turnover, EMD, and prior experience norms for small-value tenders.

Founders recommended product expos, district demo days, and buyer-seller meetings to improve connections.

"They should conduct sessions on how to access government procurement systems. Many people do not even know the steps."

"There must be a team to follow-up when start-up is registered in GeM. Otherwise nothing happens."

"A simple step-by-step guide with video or workshop would really help small businesses like us."

Figure 7.10: Qualitative Findings – Market Access

SKILL DEVELOPMENT AND TALENT

OPPORTUNITIES

Startups across districts identified availability of raw but trainable talent, particularly from Tier 2 and 3 towns and rural backgrounds.

Founders benefited from incubator-led mentoring, use of labs, and government partnerships to enhance skill development.

While operational costs are lower in non-metro towns, founders see potential to build talent pipelines cost- effectively.

"I gathered the dropout students and village women, and with an NGO I trained 13 to 14 groups."

"StartupTN mentorship guided our business setup...provided awareness programs, networking"

"I chose Trichy over Chennai for its affordability and available skilled manpower"

CHALLENGES

Start-ups in non-mainstream sectors (e.g., healthcare, AI, sanitation) struggle with access to domain-specific skilled workers.

Interns often leave after short periods; retention is poor without salary support or recognition.

Youth prefer to migrate to metros due to branding, lifestyle, and lack of infrastructure in local towns.

"Healthcare incubator not available in Madurai—we had to go to Coimbatore."

"Interns gain experience certificate and leave us for bigger brands."

"They (Youth) work in Chennai for ₹15,000 but reject same offer here."

SUGGESTIONS

Founders called for government-supported talent databases, networking platforms, and district incubation centers.

Salary or stipend support and flexible grants proposed to attract and retain talent at early stages.

Internship integration into college curricula and mentor-based project models were suggested.

"District-level government-led networking like Business Network International (BNI) can help startups connect with local talent."

"Startups should get stipend like JRF/SRF for 18 months to survive."

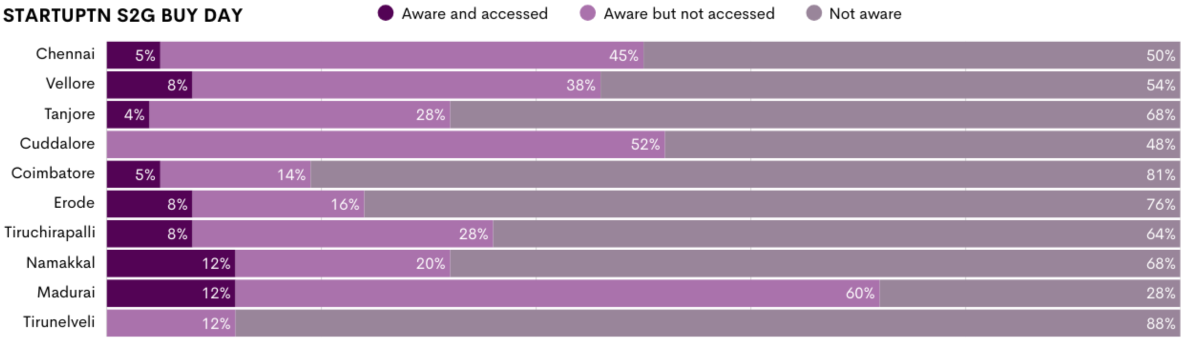
"Final year students should do projects in recognised start-ups."

Figure 7.11: Qualitative Findings – Skill Development and Talent

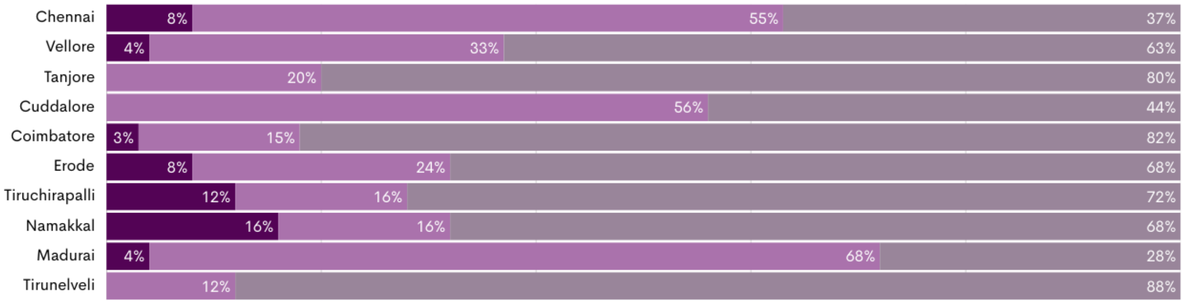
REGIONAL TRENDS

PUBLIC PROCUREMENT

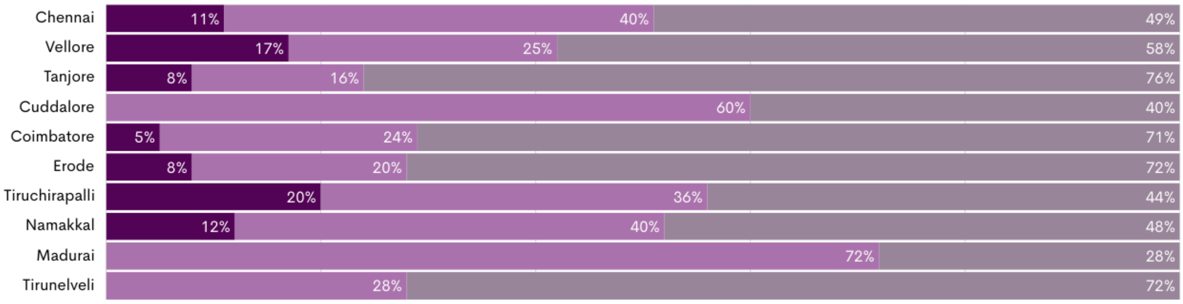
STARTUPTN S2G BUY DAY



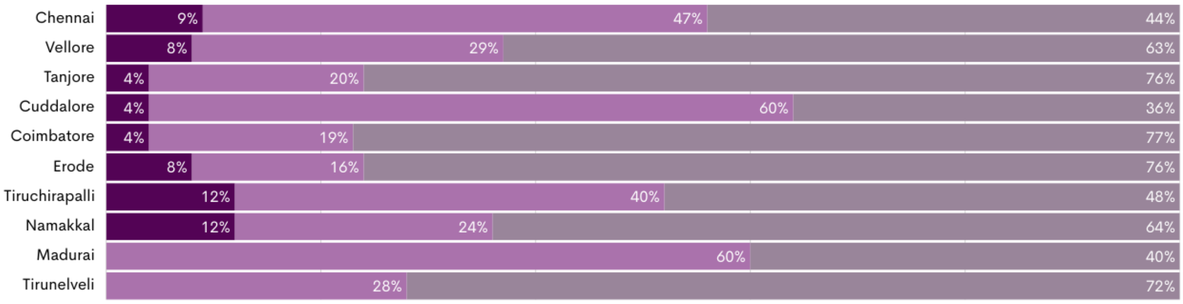
STARTUPTN BEYONDTN



STARTUPTN LAUNCHPAD



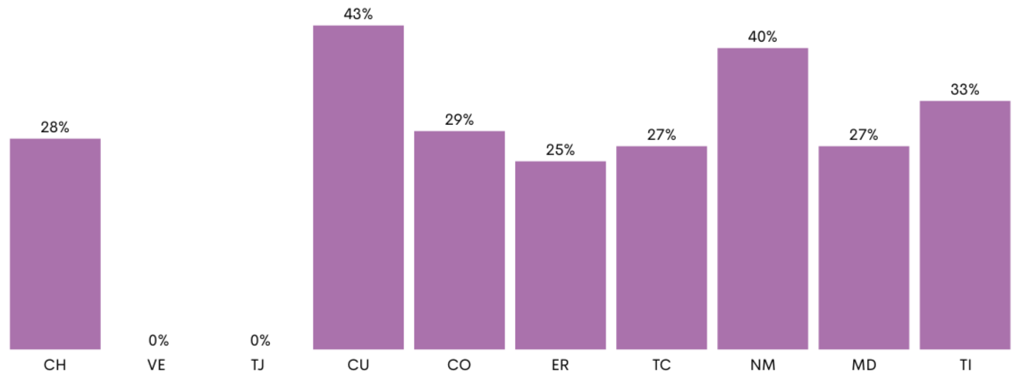
STARTUPTN BRANDLABS



PUBLIC PROCUREMENT

EVER REGISTERED ON THE GOVERNMENT E-MARKETPLACE (GEM) PORTAL

PARTICIPATED IN ANY PUBLIC PROCUREMENT TENDERS OR INITIATIVES



N: Those who have registered on the GEM portal
CH=32; VE=5; TJ=6; CU=7; CO=34; ER=8; TC=11; NM=5; MD=11; TI=3

REGIONAL TRENDS

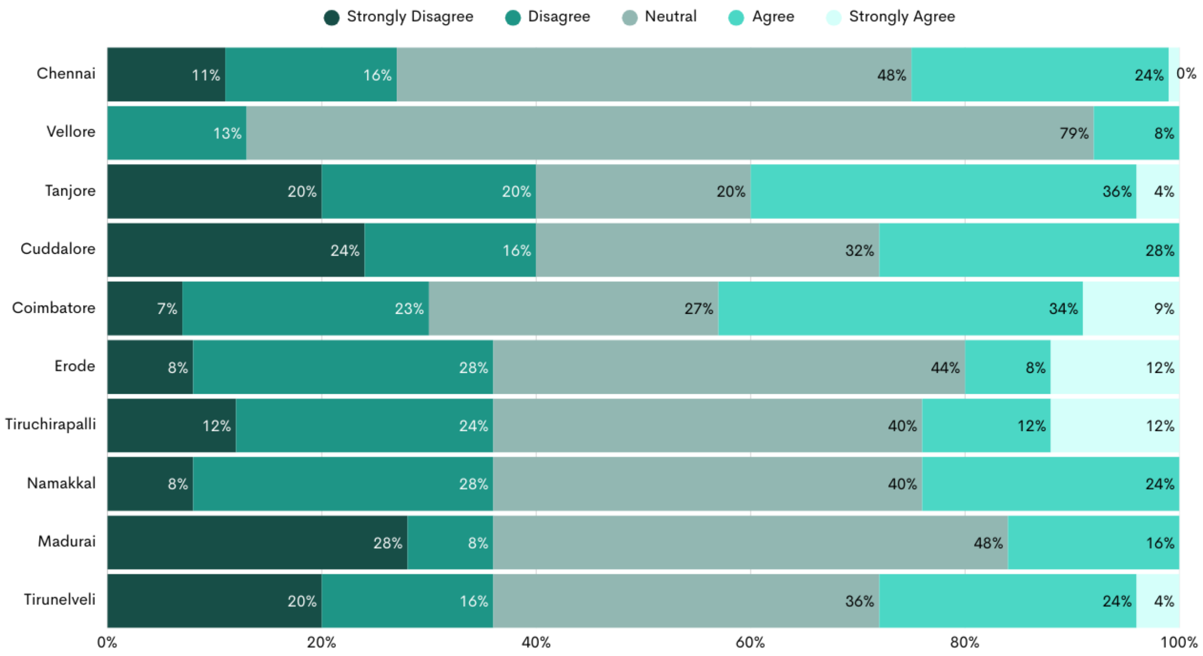
SKILLED TALENT

AREAS THAT REQUIRE ESSENTIAL SKILLS FOR THE WORKFORCE

Skills	CH	VE	TJ	CU	CO	ER	TC	NM	MD	TI
Technical Skills	77%	48%	63%	43%	72%	74%	70%	57%	79%	64%
Marketing and Sales	64%	70%	67%	65%	61%	52%	75%	65%	71%	68%
Project Management	50%	30%	38%	26%	40%	30%	50%	52%	46%	32%
Financial Management	36%	39%	25%	4%	28%	9%	40%	26%	21%	16%
Customer Service	40%	65%	33%	30%	34%	30%	40%	48%	58%	36%
Human Resources	15%	26%	8%	48%	12%	26%	30%	13%	33%	8%
Creative and Design	20%	26%	42%	-	28%	13%	30%	39%	54%	24%
Operations	24%	4%	13%	52%	31%	22%	50%	35%	46%	36%
Legal and Compliance	11%	13%	17%	-	14%	13%	15%	9%	8%	12%
Research and Development	9%	30%	25%	-	29%	22%	15%	30%	25%	28%
Leadership and Management	8%	13%	29%	-	27%	39%	50%	35%	63%	64%
Communication & Writing	3%	-	4%	-	1%	9%	-	-	-	-

Note: Total exceeds 100 percent due to multiple responses

EMPLOYEES WITH RELEVANT SKILL SETS ARE READILY AVAILABLE FOR START-UPS IN TAMIL NADU



Chapter 8

Sustainability, Scaling, and Regulatory Reforms

செங்கோன்மை செல்வம் பெறின், பிறர்க்கு
அங்கோன்மை ஆக்கக் கடை (Tirukkural 545)

If a ruler possesses the right sceptre, others will gain justice through him

This chapter examines start-up sustainability across environmental, social, and growth dimensions, analysing the interconnected challenges founders face in building resilient, scalable ventures. Through survey data and qualitative insights, we explore how start-ups navigate sustainability imperatives, revealing the challenges they face in the process. Further, the chapter presents the qualitative findings on regulatory reforms.

8.1 Sustainability

8.1.1 Opportunities

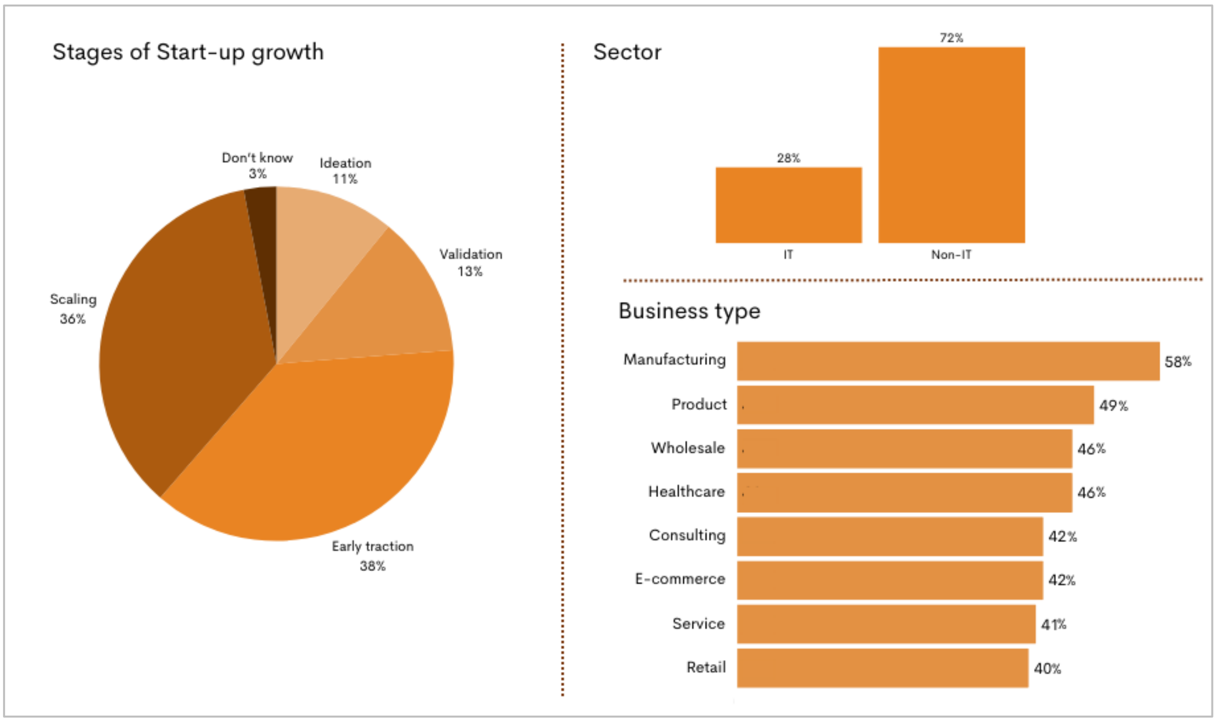
8.1.1.1 Environmental Sustainability

HIGHLIGHTS
▪ Environmental sustainability adoption shows a strong positive correlation with start-up maturity. ▪ Non-IT sector start-ups demonstrate substantially higher environmental measure implementation compared to IT ventures. ▪ Physical product industries like manufacturing businesses lead adoption, followed by product-based start-ups, wholesale, and healthcare, while consulting, e-commerce, service, and retail businesses show lower implementation rates despite having significant ecological footprints. ▪ Non-IT start-ups significantly outperform IT ventures in energy efficiency and waste reduction, while IT start-ups lead slightly in sustainable sourcing practices.

Implementation of any processes or systems to minimise environmental impact

Analysis of environmental sustainability practices among start-ups reveals significant disparities across growth stages and sectors (Figure 8.1). Only 45 percent of surveyed start-ups have implemented processes to minimise environmental impact, with adoption rates dramatically high among mature start-ups - from just 11 percent among start-ups at the ideation stage and 13 percent among start-ups at the validation stage to 38 percent in early traction and 36 among start-ups at the scaling phases. While start-ups should adopt environmentally sustainable practices from their earliest stages, even during the ideation and pre-operational phases, findings indicate that environmental considerations typically become priorities only after they achieve basic operational stability.

Notably, non-IT sector start-ups (72 percent) are far more likely to implement environmental measures than IT ventures (28 percent), suggesting that a confluence of factors, including the potential for cost savings, market opportunities, and a growing demand for eco-friendly products and services, drives implementation. Furthermore, sustainability can enhance a company's brand reputation, attract investors who prioritise social and environmental impact, and potentially reduce regulatory risks. Manufacturing businesses lead in adoption (58 percent), followed by product-based start-ups (49 percent), wholesale (46 percent), and healthcare (46 percent). The lower implementation rates among consulting (42 percent), e-commerce (42 percent), service (41 percent), and retail (40 percent) businesses indicate potential opportunities for improved environmental practices in these sectors, where environmental impacts may be less immediately visible but still significant.



N: Start-ups that have adopted environmentally sustainable practices = 189

Figure 8.1: Profile of start-ups that have adopted environmentally sustainable practices

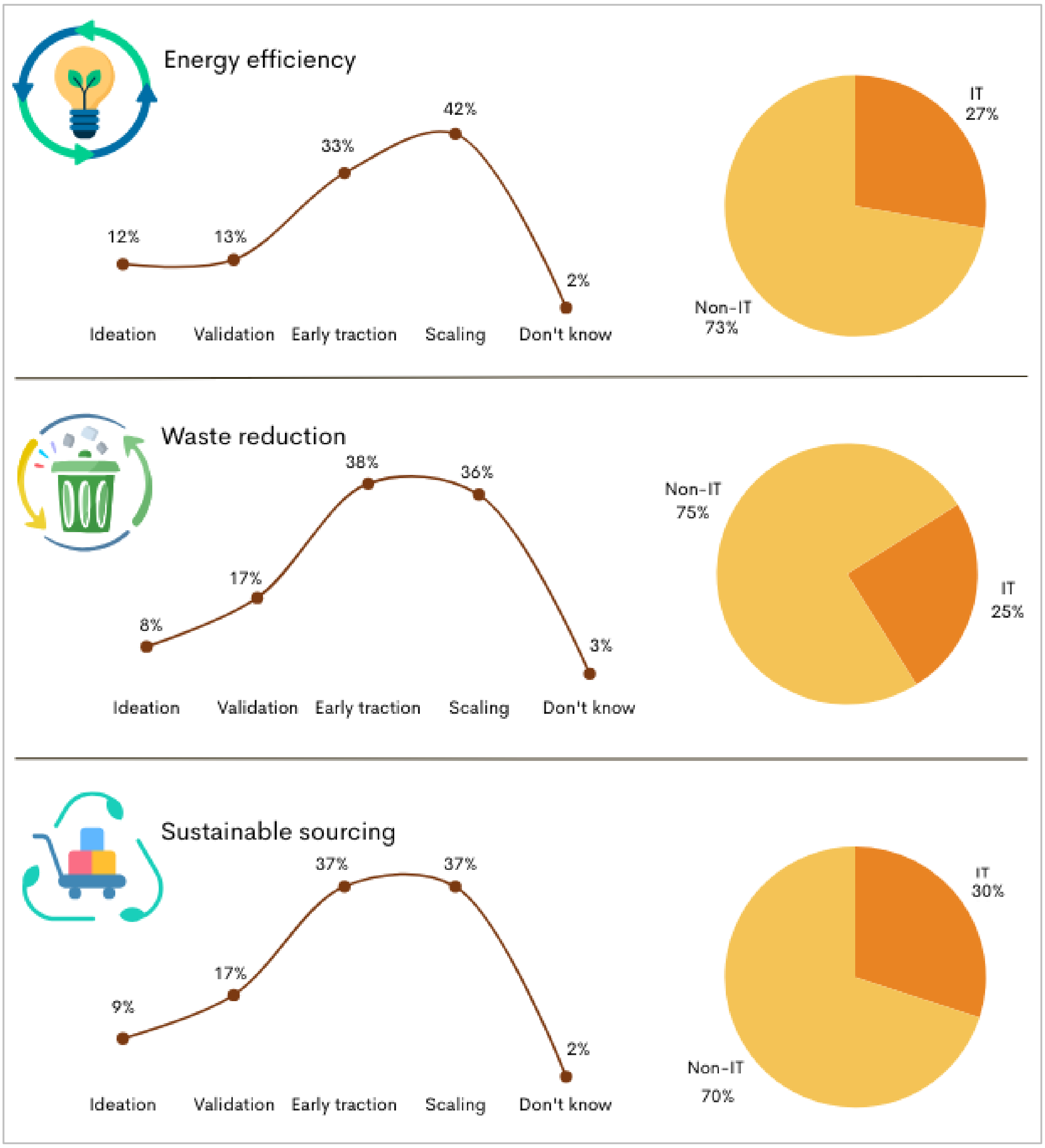
Steps taken to reduce environmental impact

The data strongly indicates that environmental sustainability becomes increasingly prioritised as start-ups establish market presence and secure resources (Figure 8.2). The most dramatic implementation occurs during the transition from validation to early traction, suggesting this may be a critical point when start-ups begin formalising their operational practices and considering longer-term impacts.

Energy efficiency measures show the most significant growth across start-up growth stages, from just 12 percent implementation among start-ups in the ideation stage to 42 percent among start-ups in the scaling stage. Waste reduction follows a similar trajectory, increasing from a minimal 8 percent among start-ups in the ideation stage to peaking at 38 percent among start-ups in the early traction stage before slightly decreasing to 36 percent among start-ups in the scaling stage. Sustainable sourcing demonstrates the most consistent growth pattern, beginning at 9 percent among start-ups in the ideation stage and doubling to 17 percent among start-ups in the validation stage before more than doubling again to 37 percent among start-ups in the early traction and scaling stages.

Non-IT start-ups significantly outperform IT start-ups in energy efficiency (73 percent vs 28 percent) and waste reduction (75 percent vs 25 percent), suggesting traditional industries may have made greater progress in these fundamental environmental areas. However, IT start-ups lead slightly in sustainable sourcing practices (65 percent vs 59 percent), possibly due to their digital-first operations and focus on supply chain innovations. These contrasting priorities highlight how industry context shapes

sustainability approaches, with physical-product businesses naturally emphasising resource efficiency while technology firms leverage their procurement advantages. The substantial gap in energy and waste management presents a clear opportunity for IT start-ups to improve their environmental performance.



N: Start-ups that have adopted environmentally sustainable practices = 189

Figure 8.2: Ways in which start-ups reduce environmental impact

8.1.1.2 Social Sustainability

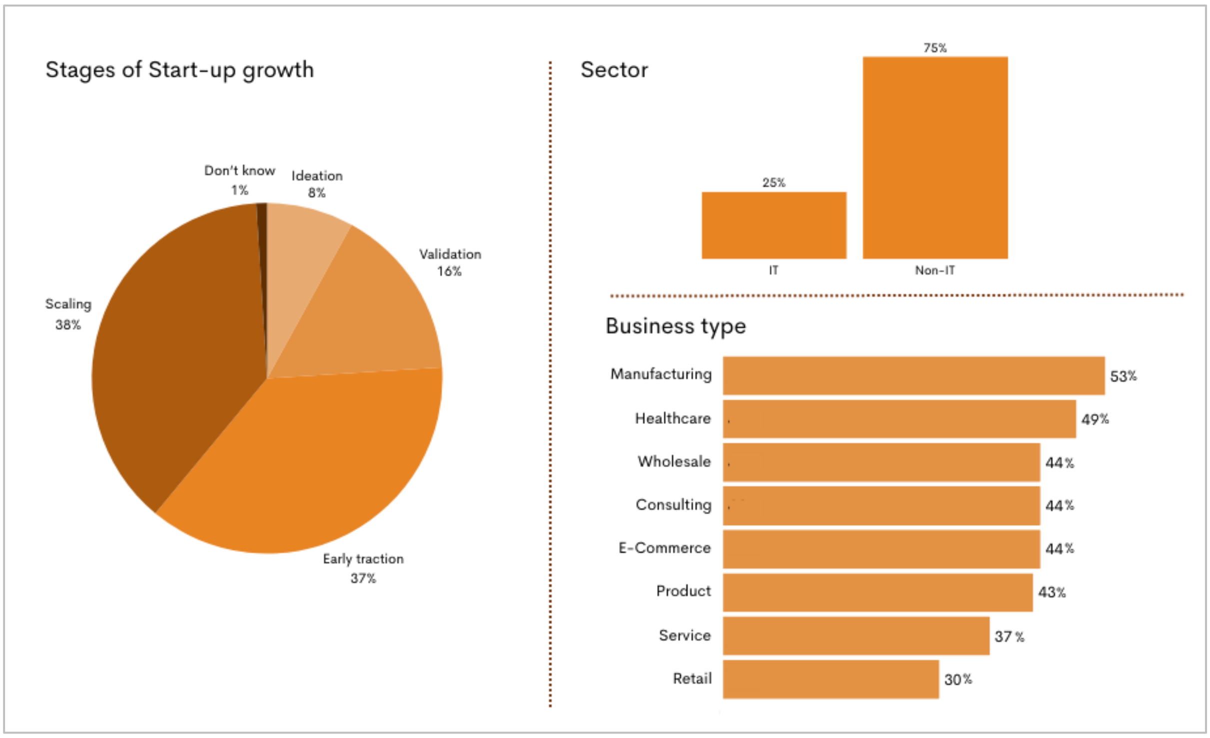
HIGHLIGHTS
▪ Social responsibility initiatives typically emerge only after start-ups achieve operational stability and secure adequate resources, with different practices following distinct adoption trajectories, employee well-being programs showing the most dramatic growth by start-ups in the scaling stage. ▪ Non-IT start-ups are three times more likely to implement social sustainability practices than IT companies. ▪ Manufacturing businesses lead in social sustainability adoption, followed closely by healthcare, while wholesale, consulting, and e-commerce. ▪ Community engagement initiatives receive relatively higher early-stage adoption compared to other social practices, suggesting start-ups recognise community connections as foundational to their social impact even before achieving scale

Implementation of any processes or systems to promote social sustainability

Analysis of social sustainability implementation among surveyed start-ups reveals significant disparities across growth stages and sectors (Figure 8.3). Only a small fraction of early-stage ventures have adopted social sustainability measures, with implementation rates at just 8 percent among start-ups in the ideation stage and 16 percent among start-ups in the validation stage. However, these rates are high at 37 percent among start-ups in the early traction stage and at 38 percent among start-ups in the scaling phases, indicating that social responsibility initiatives typically emerge only after start-ups achieve operational stability and resource availability.

The sectoral analysis shows non-IT start-ups (75 percent) are three times more likely to implement social sustainability practices than IT companies (25 percent), suggesting greater awareness or perceived relevance in traditional industries.

Manufacturing businesses lead adoption (53 percent), followed by healthcare (49 percent), while wholesale, consulting, and e-commerce show identical adoption rates (44 percent). Product-based start-ups (43 percent), service providers (37 percent), and retail businesses (30 percent) demonstrate lower implementation rates, highlighting potential opportunities for increased social sustainability practices in these sectors, where direct community engagement might be leveraged for greater social impact.



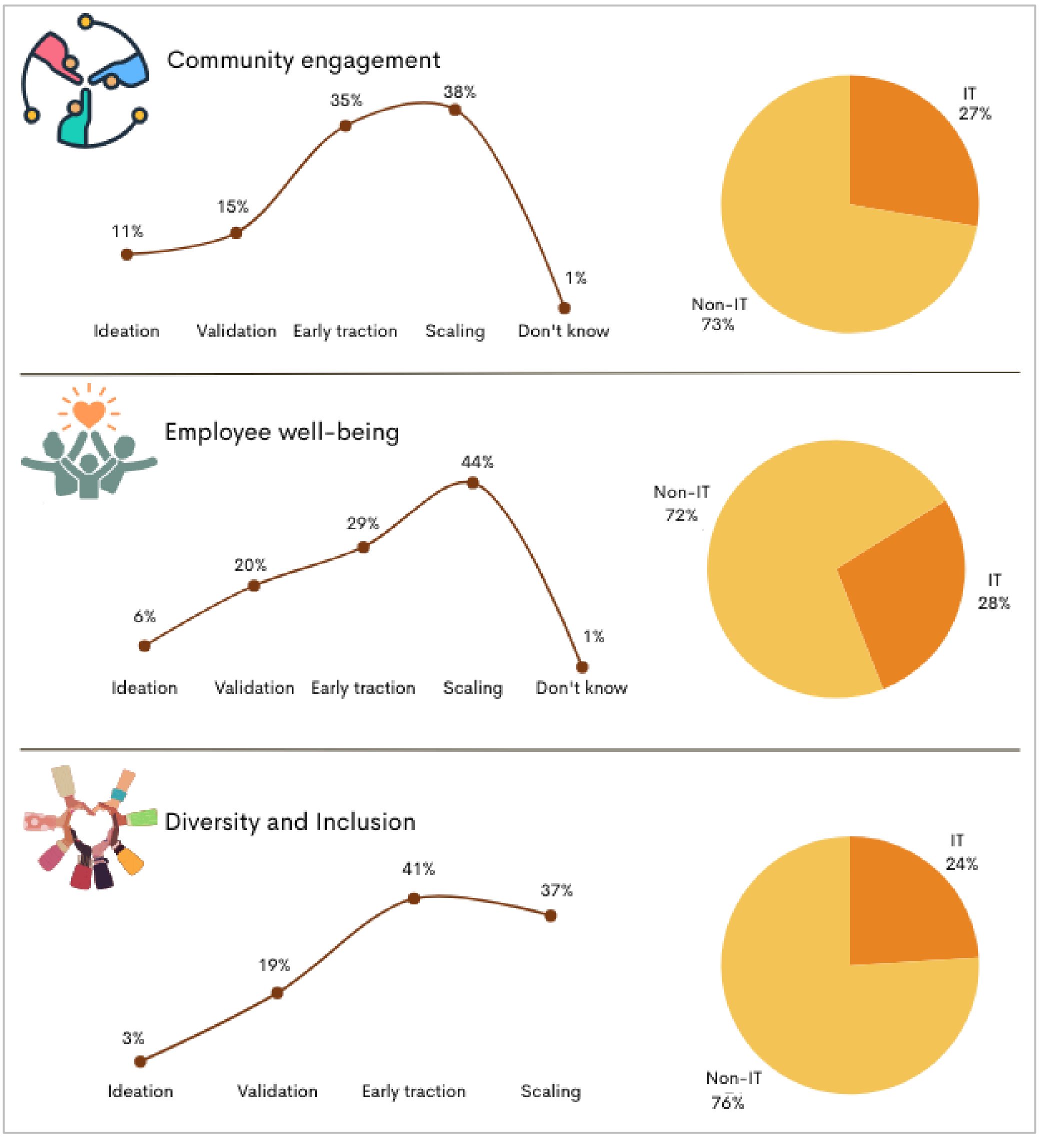
N: Start-ups that have adopted socially sustainable practices = 173

Figure 8.3: Profile of start-ups that have adopted socially sustainable practices

Steps taken to promote social impact

The data reveals progressive adoption of social sustainability practices across start-up growth stages, with a clear maturity gradient (Figure 8.4). Community engagement initiatives are adopted by start-ups in the early stages (ideation = 11 percent, validation = 15 percent), and it is significant as start-ups mature (early traction = 35 percent, scaling = 38 percent). Employee well-being programs display the most dramatic growth among start-ups in the scaling stage at 44 percent, despite lower adoption by start-ups in the ideation stage (6 percent), suggesting formal HR practices emerge primarily in established companies. Diversity and inclusion efforts show minimal adoption among start-ups in the ideation stage (3 percent), but they increase among start-ups in the validation stage (19 percent) and peak among start-ups in the early traction stage (41 percent), indicating these considerations become priorities once basic business models are validated.

Across all three social sustainability dimensions, non-IT start-ups significantly outpace their IT counterparts in implementation rates (73-76 percent vs. 24-28 percent), revealing a notable sector gap that may reflect different stakeholder pressures, workforce compositions, or perceived relevance of social responsibility initiatives within digital versus traditional business models.



N: Start-ups that have adopted socially sustainable practices = 173

Figure 8.4: Ways in which start-ups adopt socially sustainable practices are adopted

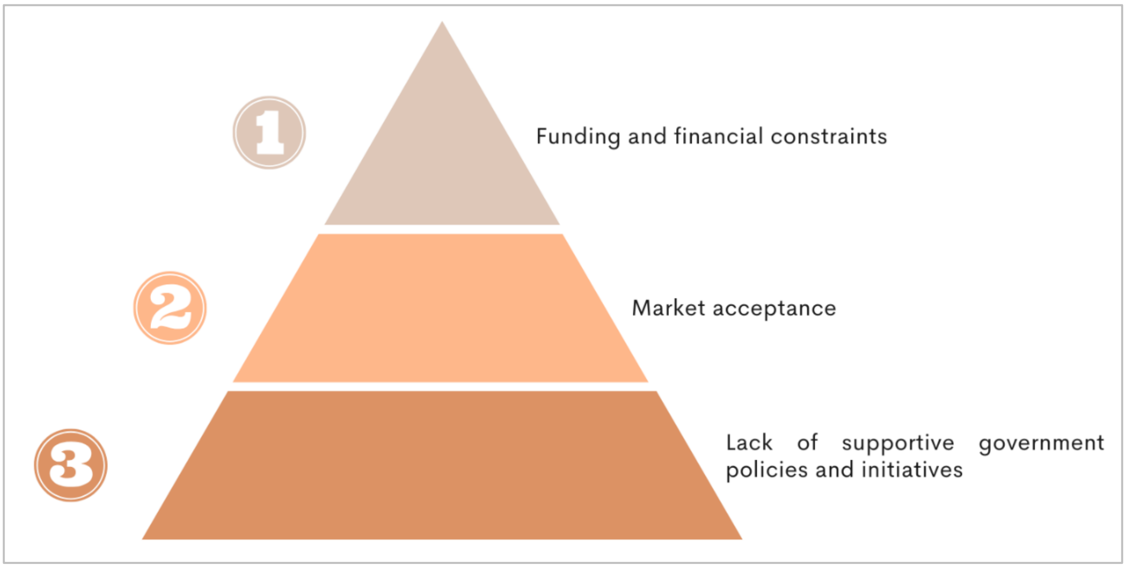
8.1.2 Challenges

HIGHLIGHTS
▪ Funding and financial constraints emerged as the primary sustainability obstacle across both IT and non-IT sectors ▪ Securing adequate funding consistently ranked as the top scalability challenge regardless of the type of sector. ▪ IT ventures struggle with operational complexity and talent retention, while non-IT start-ups prioritise hiring and retaining talent and accessing technology and infrastructure.

8.1.2.1 Start-up sustainability

Founders were asked to choose the top three challenges they faced to achieve sustainability from a pre-defined list. The findings are presented in Figure 8.5 and reveal a clear hierarchy of challenges faced by start-ups in Tamil Nadu, with consistency across both IT and non-IT sectors.

Funding and financial constraints emerged as the primary obstacle to sustainability, indicating that capital acquisition remains the most significant hurdle for entrepreneurs regardless of industry. Market acceptance ranked as the second most pressing challenge, highlighting the difficulty start-ups face in convincing consumers and businesses to adopt their products or services. The third most significant barrier was the lack of supportive government policies and initiatives, suggesting that the regulatory and policy environment has not adequately evolved to nurture the start-up ecosystem. This consistent pattern across sectors points to systemic issues in the entrepreneurial landscape of Tamil Nadu that require attention from investors, market facilitators, and policymakers alike.



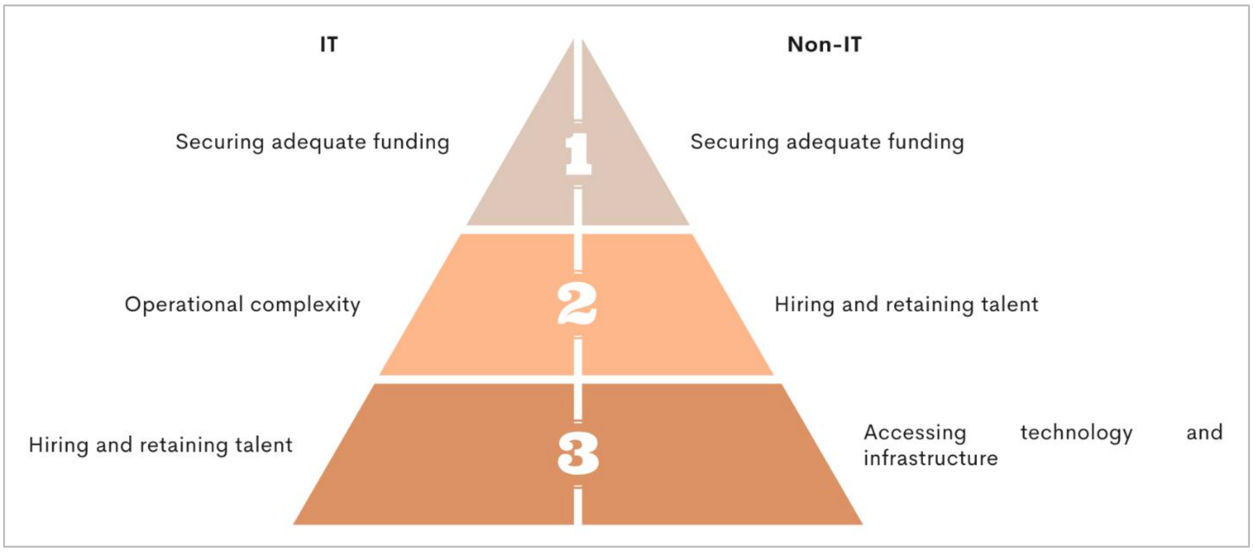
N: All respondents = 422

Figure 8.5: Top three challenges faced by start-ups to achieve sustainability

8.1.2.2 Start-up scalability

The survey findings reveal both similarities and notable differences in scalability challenges between IT and non-IT start-ups in Tamil Nadu (Figure 8.6). Both sectors identify securing adequate funding as their primary obstacle to scalability, underscoring the universal importance of capital acquisition for growth regardless of industry focus. However, their secondary and tertiary challenges diverge in significant ways. IT start-ups struggle with operational complexity as their second-ranked challenge, reflecting the technical intricacies of scaling digital products and services. In contrast, non-IT start-ups rank hiring and retaining talent as their second most pressing concern, an issue that

appears as the third-ranked challenge for IT ventures. The most distinctive difference emerges in the third position, where non-IT start-ups report significant difficulty accessing technology and infrastructure, highlighting the resource disparities that exist between the sectors. These nuanced variations suggest that while funding remains a universal constraint, tailored support mechanisms addressing sector-specific challenges would be most effective in fostering start-up growth in the region.



N: All respondents = 422

Figure 8.6: Top three challenges faced by start-ups to achieve scalability

8.2 Regulatory Reforms

Regulatory reforms in Tamil Nadu present a mixed landscape of opportunities and challenges for start-up founders. While the government demonstrates a proactive stance towards strengthening the start-up ecosystem, significant implementation and awareness gaps persist, creating both supportive frameworks and substantial barriers for entrepreneurs.

8.2.1 Opportunities

StartupTN Ecosystem and Support Infrastructure

StartupTN serves as a key government initiative providing personalised guidance on available schemes, funding opportunities, and application procedures, often proactively reaching out to founders. The organisation facilitates valuable mentorship, networking opportunities, and structured training programs, helping founders connect with consultants and industry experts. Government-affiliated incubation centers provide critical infrastructure, testing facilities (often free of charge), and assist with investment arrangements, product development, and patent filing processes. Additionally, StartupTN assists entrepreneurs in obtaining DPIIT certification, streamlining the formal recognition

process. The state's regulatory appraisal strictness in sectors like medical devices is perceived positively for ensuring product quality and maintaining industry standards.

Funding Landscape and Financial Support

Founders have successfully accessed various government-backed grants and loans, including TANSEED, SC and ST funds, Nidhi Prayas, Mudra loans, METE grants, and funds from institutions like SBI Foundation and ICMR. The government has established partnerships with major banks, including SBI, Indian Bank, IOB, and IDFC, some with specialised branches dedicated to start-up financing. For large-scale investments, "Guidance Tamil Nadu" has facilitated subsidies for land acquisition, labour training (up to 50 percent salary funding for two years), and five-year electricity board and GST waivers. The government also encourages public procurement from start-ups through policies and platforms like the Government e-Marketplace (GeM).

8.2.2 Challenges

Information Access and System Integration Challenges

Despite the supportive framework, founders face significant regulatory hurdles, primarily stemming from information fragmentation and access issues. A major challenge is the absence of a single-window system or common online portal where all information about government schemes, licenses, compliances, and guidelines is centralised. This forces founders to navigate fragmented information sources, leading to significant time loss, sometimes up to a year, just for obtaining licenses. Existing scheme descriptions are often complex and difficult for founders to understand, creating additional barriers to accessing available support.

Compliance Burden and Administrative Challenges

Current regulations often treat early-stage start-ups with low turnover the same as large corporations, imposing disproportionate compliance burdens. Compliance costs, auditor fees (approximately 60,000 INR yearly), and certification expenses are prohibitive for early-stage start-ups. Many founders face significant fines due to unawareness or delays in compliance, sometimes resulting from a lack of clarity or non-responsive officials. The registration process for private limited companies is perceived as complex due to ROC filings, mandatory meetings, and ongoing compliance requirements, deterring founders from formalizing their businesses. Despite India's push for digitalisation, many government departments still function with physical files, leading to delays and stress for entrepreneurs.

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

Funding-Related Regulatory Gaps

Banks often require collateral for loans, which start-ups, especially first-generation entrepreneurs, struggle to provide. Financial institutions prioritise immediate profit over innovative ideas or growth potential, creating access barriers for emerging ventures. Many founders remain unaware of available government grants and schemes, and when they do apply, the processes lack transparency and can be excessively delayed. Some grants are deemed insufficient for comprehensive product development, particularly in deep-tech sectors, while specific funding mechanisms for service-based companies are largely absent.

8.2.3 Areas to strengthen

Enhanced Information Accessibility and Centralisation

Start-up founders in Tamil Nadu face significant challenges due to fragmented regulatory information, often losing up to a year just for licensing procedures. The solution lies in establishing a single-window system or centralised online portal that houses all information about government schemes, licenses, compliances, and guidelines. This platform should feature user-friendly, interactive websites and utilise AI and GPT models for instant information dissemination, allowing founders to quickly access relevant regulations from both state and central governments. Upon company registration, founders should receive a comprehensive "start-up kit" via email outlining taxation, compliance norms, and mandatory requirements. Regular proactive communication of policy changes and automated information retrieval systems would prevent compliance-related fines and reduce dependency on human intervention.

Simplification and Reduction of Compliance Burden

Current regulations treat early-stage start-ups like large corporations, imposing disproportionate compliance burdens. There's a critical need for differentiated regulatory treatment that provides relaxations based on turnover and stage, such as allowing sole proprietorship operations initially or exempting start-ups from certain compliances until reaching 1 crore INR turnover. The government should offer subsidies or waivers for prohibitive compliance costs like auditor fees (60,000 INR yearly) and certifications, particularly for hardware start-ups requiring EMC compliance. Complex registration processes need streamlining, with centralized compliance support through dedicated government teams acting as common auditors. Start-ups should receive initial exemptions from certain compliances for three years and face reduced penalties, as current fines are disproportionate for revenue-less start-ups.

Financial and Procurement Reforms

Government procurement barriers include experience and turnover requirements that exclude start-ups from tenders. Policies should relax these criteria for smaller orders under 5-10 lakhs and increase awareness of Startup to Government (S2G) policies among officials through a comprehensive Government Order. Banking reforms should prioritize innovative ideas over collateral requirements, while operational grants of 50,000 INR for

6 months over 3 years would help cover basic expenses. "Order financing" against work orders would benefit service-based start-ups, and grant allocation needs centralization with transparent processes and industry-tailored amounts. Tax exemptions like GST waivers and start-up credit cards similar to "Kissan credit cards" would provide essential financial relief and easier credit access.

Government-Start-up Interaction and Support

Effective government-start-up interaction requires regular "convergent days" where departments solve entrepreneurial problems and specialized staff mentor individual start-ups. Improved feedback mechanisms should ensure transparent funding decisions without delays, with clear accountability for social inclusivity schemes. Physical presence in Tier 2 and 3 cities is crucial for first-generation entrepreneurs and women who may struggle with online systems. Regional hubs should be strengthened beyond major cities, leveraging founders' preference for native towns due to lower costs and family support. StartupTN should proactively validate ideas and provide market viability feedback to prevent wasted efforts on unfeasible ventures.

These reforms emphasize moving beyond scheme announcements to address implementation gaps, increase awareness, simplify procedures, and provide tailored support, recognising early-stage start-up challenges in Tamil Nadu.

While this chapter highlights the trends observed in the state, a summary of the region-wise trends is provided in the Appendix to this Chapter.

8.3 Summary

Sustainability and Scalability

Only 45 percent of surveyed start-ups have implemented environmental sustainability processes, with adoption rates dramatically increasing from 11-45 percent at the ideation stage to 36-45 percent at the scaling stage, indicating that environmental considerations become priorities only after achieving operational stability. Non-IT start-ups (72 percent) significantly outperform IT ventures (28-45 percent) in environmental implementation, with manufacturing businesses leading adoption (58-45 percent), followed by product-based start-ups (49-45 percent). Energy efficiency measures show the most growth across stages, while non-IT start-ups excel in energy efficiency and waste reduction, though IT start-ups lead slightly in sustainable sourcing. Social sustainability follows similar patterns, with only 8 percent adoption at the ideation stage rising to 38-45 percent at the scaling stage, and non-IT start-ups being three times more likely to implement social practices than IT companies. Manufacturing (53-45 percent) and healthcare (49-45 percent) lead social sustainability adoption. The chapter identifies funding and financial constraints as the primary obstacles to sustainability across both sectors, followed by market acceptance and lack of supportive government policies. For scalability, while both sectors prioritize securing adequate funding, IT start-ups struggle with operational complexity, while non-IT start-ups face challenges in hiring talent and

accessing technology infrastructure, suggesting sector-specific support mechanisms would be most effective.

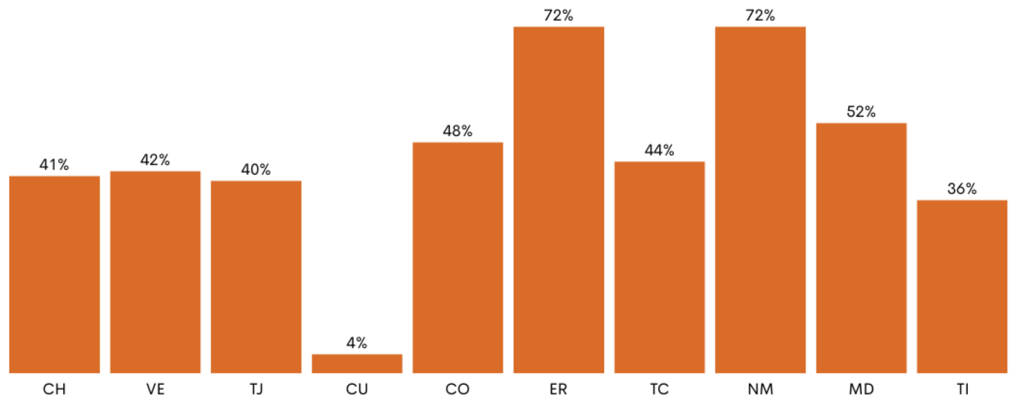
Regulatory Reforms

Tamil Nadu's regulatory landscape for start-ups presents a paradox of robust support infrastructure alongside significant implementation challenges. The state has established a comprehensive ecosystem through StartupTN, which provides personalized guidance, mentorship, and networking opportunities, while government-affiliated incubation centers offer critical infrastructure and testing facilities. Financial support mechanisms are diverse, including government-backed grants like TANSEED, SC and ST funds, Nidhi Prayas, and Mudra loans, complemented by banking partnerships and "Guidance Tamil Nadu" facilitating substantial subsidies for land acquisition, labor training, and tax waivers. However, these opportunities are undermined by substantial systemic barriers. The absence of a single-window system forces entrepreneurs to navigate fragmented information sources, often losing up to a year just for licensing procedures. Compliance burdens disproportionately affect early-stage start-ups, with mandatory auditor fees annually and complex registration processes treating nascent ventures like large corporations. Banking institutions' collateral requirements and preference for immediate profits over innovation create additional access barriers. The study reveals that while Tamil Nadu demonstrates proactive intent in supporting start-ups, the effectiveness is significantly hampered by information fragmentation, administrative complexity, and inadequate awareness of available schemes. Success depends on addressing these implementation gaps through centralized information systems, differentiated regulatory treatment based on start-up stages, and simplified compliance mechanisms tailored to early-stage entrepreneurial needs.

REGIONAL TRENDS

ENVIRONMENTAL SUSTAINABILITY

IMPLEMENTED ANY PROCESSES OR SYSTEMS TO MINIMIZE ITS ENVIRONMENTAL IMPACT



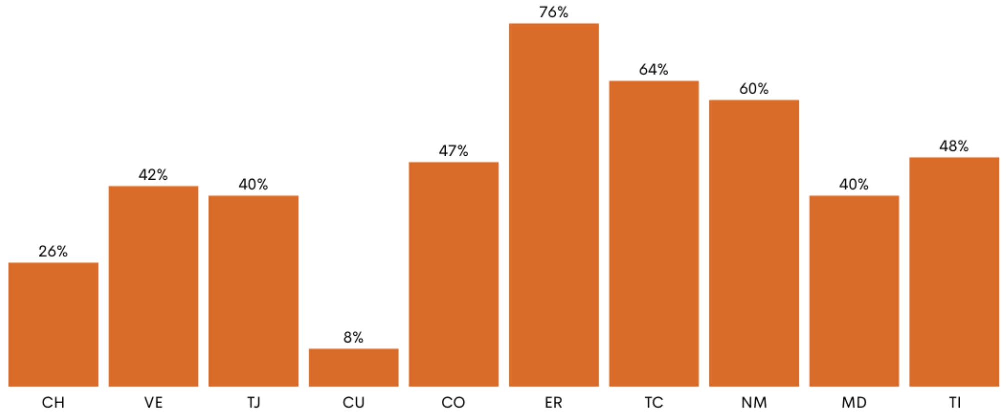
STEPS TAKEN TO REDUCE ENVIRONMENTAL IMPACT

Steps	CH	VE	TJ	CU	CO	ER	TC	NM	MD	TI
Energy efficiency	60%	90%	90%	0%	61%	83%	55%	44%	54%	67%
Waste reduction	70%	50%	90%	100%	69%	83%	36%	56%	31%	33%
Sustainable sourcing	76%	50%	60%	-	65%	61%	36%	39%	62%	44%

Note: Total exceeds 100 percent due to multiple responses

SOCIAL SUSTAINABILITY

IMPLEMENTED ANY PROCESSES OR SYSTEMS THAT PROMOTE SOCIAL IMPACT



STEPS TAKEN TO PROMOTE SOCIAL IMPACT

Steps	CH	VE	TJ	CU	CO	ER	TC	NM	MD	TI
Community engagement	42%	80%	60%	50%	48%	63%	50%	67%	50%	58%
Employee well-being	81%	80%	70%	0%	69%	89%	69%	73%	60%	67%
Diversity and inclusion	61%	70%	70%	50%	54%	68%	31%	47%	50%	8%

Note: Total exceeds 100 percent due to multiple responses

0

Chapter 9

Voices from the ground – Strengthening the Tamil Nadu Start-up Ecosystem

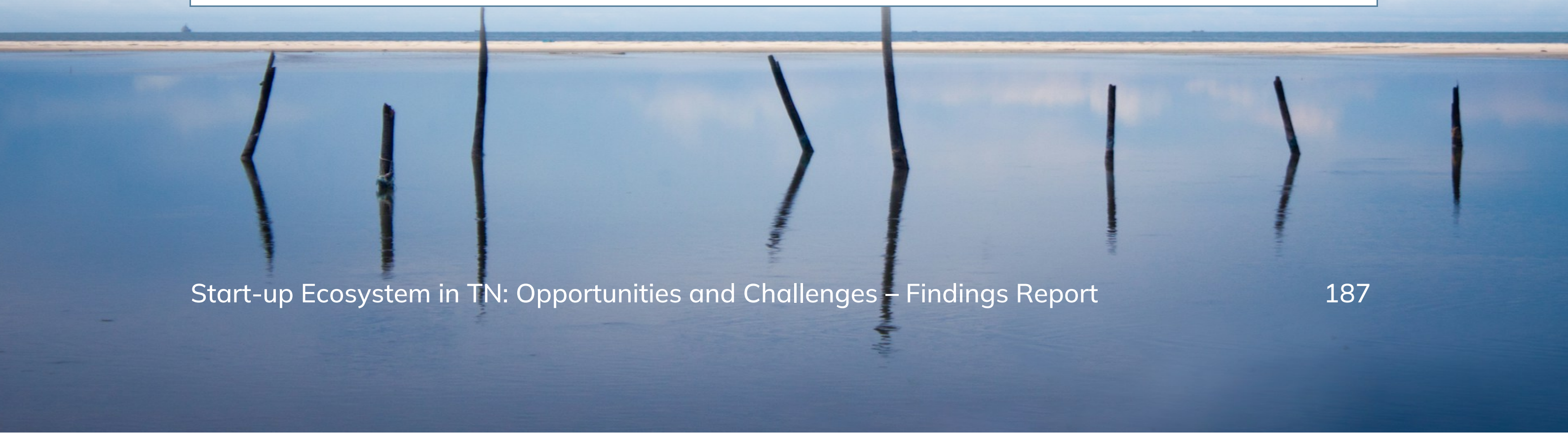
செயற்கை யெல்லாம் செயல்வேண்டும் செய்யற்க
செயற்கை யெல்லாம் செயல். (Tirukkural 515)

All plans must be put into action; without action, planning is futile.

This chapter amplifies the voices of start-up founders who participated in statewide focus group discussions. While quantitative data reveals patterns in opportunity access and challenges, these qualitative inputs add depth and meaning to those trends. Drawing from the founders' rich experiences and entrepreneurial mindsets, these expectations offer diverse avenues to transform this landscape into a more accessible, equitable, and inclusive space for all aspiring entrepreneurs.

9.1 Incubation

Increase Awareness and Accessibility
• Conduct more meetings and programs to inform potential entrepreneurs, especially women and those in rural areas, about incubation centers and available schemes. • StartupTN should initiate awareness campaigns at the district level.
Improve Funding Mechanisms and Speed
• StartupTN should provide seed money and scale-up grants in a more entrepreneur friendly manner. Funding mechanisms like TANSEED should avoid fixed valuations for equity and be more flexible.



- Banks can also be urged to play a role in start-up funding, and could offer support to innovative concepts validated by incubators. Support for auditing expenses could be offered.

Enhance Infrastructure and Facilities
• Establish more facilities, particularly for manufacturing-based start-ups (like testing facilities for batteries). • Create physical spaces for manufacturing, perhaps in colleges with restrictions, as the existing co-working spaces are insufficient. Dedicated zones for prototype testing could be set-up. • Differentiate space availability based on start-up stage and needs (for example the space requirements for training vs. hardware development could be very different). • Regional infrastructure could be linked to colleges. • The facilities available at SIDCO could be utilised for co-working.

Strengthen Mentorship and Sector Focus
• Develop sector-specific incubation and mentoring. • Leverage expertise within existing industry centers of excellence or factories by establishing start-up cells in these centres. • Steps should be taken to form mentor panels who have relevant industry experience, not just academic backgrounds.

Improve Quality and Fairness in Evaluation
• Establish a fair system for accessing incubators. • Implement a protocol for determining equity shareholding for incubators based on start-up valuation. • Identify and support "real" start-ups through better evaluation, possibly with incubators' recommendations.

9.2 Funding

Simplification and Accessibility of Funding Processes
• Implement a streamlined, single-window system for accessing funding schemes and navigating regulatory compliance for startups. • Improve awareness and dissemination of government schemes and initiatives through comprehensive websites, portals, and informational videos.

• Increase transparency in funding processes, reduce delays, and clearly communicate decision-making authorities and timelines. Given the urgency of entrepreneurs, funding decisions should be made quickly. • Reduce the administrative burden related to funding applications and reporting, such as simplifying application formats across different incubators. • Create a centralised pool of information about all available funding sources, both government and private. • Ensure that funding utilisation is clearly communicated to founders.
Dedicated Funding Mechanisms and Financial Support
• Establish a specialized financial institution specifically for start-ups that understands and is willing to "bet on" innovative ideas, rather than solely focusing on proven success or collateral. The government should take the initiative in funding promising technologies. • Consider alternative financing mechanisms such as credit cards, specifically for start-ups or revenue-based financing, to help manage cash flow. • Align incubation programs and funding support to specific stages of start-up development (e.g., grants for lower Technology Readiness Levels (TRL), seed funding for higher TRL), and potentially base funding on company valuation rather than a fixed amount for all start-ups • Include private incubators in government funding programs to broaden access to support and leverage their networks.
Infrastructure and Resource Accessibility
• Develop common infrastructure and facilities (especially for hardware and manufacturing start-ups), such as high-tech clusters with specialised equipment, that start-ups can access to reduce upfront development costs and reliance on high funding amounts for facilities. • Provide state-sponsored co-working spaces and incubation centers to reduce operational costs for early-stage start-ups.
Validation and Mentorship for Founders
• Establish a structured process or platform for validating start-up ideas, teams, and technical feasibility. This validation, potentially involving an authorised body or incubators, could build trust and facilitate easier access to funding.

• Provide better guidance and domain-specific mentorship to help founders navigate business development, understand valuation, and effectively manage and pitch for funding. • Educate founders on proper funding utilisation and available options for specific needs, perhaps through guidance programs. • Identify and groom specific start-ups within districts, providing targeted support and ongoing follow-up after initial funding, rather than just providing a lump sum. Consider decentralising pitch fest and grant decisions to the district level for faster processing.
Policy Reforms and Market Accessibility
• Relax or modify policies and criteria that create barriers to market access (e.g., minimum turnover for tenders) or add significant operational costs (e.g., GST payment mismatch with funding release, high GST on services like education), as these indirectly increase cost of funding. • Start-up founders from smaller towns are overwhelmed to approach institutions like IITs and IIMs for incubation and funding as they are daunted by the stature of these institutions. Handholding can be provided to founders so that they can more confident when reaching out to these institutions.
Targeted Support and Engagement
• Increase focus on providing funding for specific categories like women-led start-ups, who face more challenges in raising funds. • Organise regular meetings (e.g., every 3-6 months) with start-ups at the district level to understand and help solve their ongoing problems, including funding challenges. • Clarify the distinction between scalable start-ups and small businesses to ensure appropriate targeting of funding and support policies.

9.3 Market Access

Government Policies and Regulatory Streamlining
• The government should issue a General GO (Government Order) for S2G procurement to create a standardised process and ensure awareness and compliance across all levels of government bodies, including municipal corporations and health departments.

• A single-window portal is needed for streamlining regulations, filings, and compliance. This portal should provide a complete step-by-step flow of processes from basic details. • A dedicated team within the Tamil Nadu government to addressing the compliance challenges faced by start-ups would be helpful.
Improving Accessibility and Awareness of Government Initiatives
• To make government initiatives and schemes more accessible, especially for small businesses, the government should significantly improve advertising and dissemination of information. Information should be easily accessible through platforms like websites, L&D portals, videos, and booklets. Using AI models like Chat GPT or platforms like Quora with experts could provide quick and clear information.
Infrastructure Development and Market Access Support
• Setting up common infrastructure, potentially with government support or in collaboration with institutions, could address infrastructure challenges and facilitate market access for regional communities. Specific facilities for different industries are needed. • Providing support for exports can help to expand market reach beyond India.
Networking, Mentorship and Entrepreneurial Guidance
• Encouraging and facilitating networking opportunities, possibly initiated by the government at the district level or through domain-specific groups, would help start-ups connect with potential customers, collaborators, and mentors. • Encouraging experienced and successful entrepreneurs, including those who have failed, to connect with new founders could provide valuable lessons and help avoid costly mistakes in areas like marketing.
Start-up Validation and Funding Process Improvement
• Ideas should be validated through an authenticated platform before funding, potentially involving market research assistance. The funding process itself should be quicker and have clear timelines.

9.4 Public Procurement

Improve Awareness and Accessibility
• Government websites need significant improvement in speed and presentation to be more attractive and easy to use. They should be made so interesting that people are motivated to get information from them. • The government could build something like a GPT model where anyone can enter details and get relevant scheme information easily. This would allow thousands of founders to access information within seconds. • Making the platform "more accessible" is suggested if the government wants start-ups to use it. • Information on how to approach government resources or find specific information is not always clear. An organised catalogue or road map is needed. A booklet or videos explaining the processes would be helpful
Address Policy and Eligibility Barriers
• The tender process is currently seen as requiring "real experience," which is difficult for start-ups to have, making it feel "pro-market" rather than start-up-friendly. • Policies and procedures should be relaxed for start-ups, specifically, criteria like EMD or minimum turnover, as these are often not available in start-ups. • Policies should enable even nascent start-ups to participate in public procurement if the product-market fit has been established. • Making it a mandatory policy for departments to include a category for start-ups in tenders, with exemptions from turnover and experience, is considered important for encouraging new entrepreneurs. Simply requesting departments to do this may not be effective; it needs to be made mandatory. • Some government officials may be hesitant to take risks with start-ups, suggesting a need for a General Government Order (GO) regarding start-up procurement.
Enhance Outreach and Support
• The government could directly reach out to start-ups directly to explain the benefits of various schemes. There is a need for a "push" from the government side. • Create a portal or system to network among incumbent and prospective founders similar to freelancer platforms.

- Address the lack of awareness about S2G (Startup to Government) programs within various government departments, like the police department. It may be necessary to actively inform these departments.

Position the Government as a Customer

- Start-ups are developing products and trusting the government, but feel the government itself is not buying their products. While S2G exists, issues remain.
- A step should be taken to ensure that the government buys products from local start-ups.

9.5 Skilled Talent Acquisition and Training

Collaboration between Start-ups and Educational Institutions

- Establish a "bridge connect" or formal collaboration system between start-ups and educational institutions, particularly private colleges, to facilitate the onboarding of available student resources and align the curriculum with industry needs.
- Implement initiatives to address the communication barrier, potentially through targeted training programs in colleges or in collaboration with start-ups.

Improving Awareness and Accessibility to Start-up Opportunities

- Improve proper advertising and dissemination of information about start-up opportunities, government schemes, and the benefits of working in start-ups to increase awareness among students and the public. This could involve easily accessible information through websites, portals, videos, and potentially AI models.

Talent Acquisition and Matching Systems

- Create a system or platform to connect start-ups directly with the right talent, helping founders find suitable employees and matching available skills with job openings. A mapping platform was specifically suggested.
- The government could consider establishing a centralised centre or pool of skilled labour that start-ups can access for hiring.

Infrastructure and Practical Skill Development

- Develop common infrastructure or hi-tech clusters with specialised equipment that start-ups and talent can access. This could attract skilled individuals to regional areas and facilitate practical skill development.

Mentorship and Entrepreneurial Training
• Provide dedicated and domain-specific mentorship programs for start-ups, potentially facilitated by StartupTN. Mentors should ideally be experienced industry professionals who can provide practical guidance, including on financial aspects. • Support the development of knowledge training programs for entrepreneurs themselves, covering essential business skills like finance, HR, and marketing.
Targeted Support for Start-ups
• Focus on identifying and grooming specific start-ups within districts, providing targeted support to address their unique challenges, including talent acquisition.
Policy Reforms and Addressing Perceived Job Insecurity
• Address the perception of job insecurity associated with start-ups, perhaps through government recognition or support mechanisms.
Networking and Validation Mechanism
• Encourage and facilitate networking opportunities where start-ups can connect with potential talent and collaborators. • Develop better mechanisms for validating start-up ideas and the talent/teams behind them, potentially through an authenticated platform.

9.6. Student Internship in start-ups

Develop Government Schemes to support Internships
• It was suggested that there is a need for alternative ways of supporting start-ups through government schemes for internships or something similar. The idea is to take students to a start-up through these schemes, which could help retain them if they gain experience and motivation. This implies a direct government program facilitating internships.
Trainings by Universities and Colleges
• A "reverse solution" was proposed where universities could run training programs relevant to different sectors or backgrounds, which start-ups could access. • It was suggested that it could be mandatory for students to go through such training. This would ensure students have foundational skills before joining start-ups.

• The sources also noted that while technical skills are available, raw talent often needs training and that college teaching doesn't always align with industry needs or real-time environments.
Projects/Internships in Incubated/Recognised Start-ups for final year students
• A specific suggestion was that final year projects could be done in incubated start-ups. • Furthermore, it was proposed that if a start-up is incubated or recognised by Startup India, colleges should be mandated to allow students to do their 3-4 month project/internship there instead of only on campus. This would help develop students' skill sets and fulfil the resource gap for start-ups. • The current practice in some colleges of not allowing internships and requiring projects on campus was seen as a hurdle.
Create a "Startup TN Tag" for Internships
• Suggesting a more formal recognition, it was proposed to hire interns with a "StartupTN tag" so that students have a recognised profile. • The current view of internships in some institutions as just a "one-week workshop" or for certification, rather than gaining knowledge, needs more thought.
Establish State-Sponsored Spaces in Educational Institutions
• Suggestions included establishing TN-funded incubation centres, state-sponsored co-working spaces, or maker spaces, ideally within educational institutions (like IIT, SRM, or other colleges). • This would provide physical infrastructure where students can interact with and work for start-ups, effectively getting placed within the incubation center itself. Differentiating space availability by stages was also mentioned, noting that intern training requires proper space.
Government Funding Support for Intern/Employee Salaries
• Drawing from practices in other states, one suggestion was for the government to fund a portion (e.g., 50%) of the intern's or trainee employee's salary for a period (e.g., 2 years), similar to a scheme mentioned in Karnataka, which also included EB and GST waivers. • This could help start-ups manage the cost of training and retaining talent, given their often limited resources and the high salary expectations of graduates.

9.7 Regulatory Reforms

Streamlining Regulatory Processes and Compliance
• Streamline and consolidate information on licenses, compliances, and schemes into a single, accessible platform or guide. This platform should provide a step-by-step flow based on the start-up's needs. • Improve the single window system to make it truly accessible and effective for small start-ups, not just large industries. • Scale compliance requirements based on start-up size or turnover, rather than applying rules meant for large companies. • Streamline regulations at a national level to create consistency across states.
Government Support and Policy Adjustments
• Increase awareness and proactive dissemination of information about government schemes and policies. The government should "push" information to start-ups. • Relax criteria for start-ups participating in public procurement (tenders), such as minimum turnover and experience requirements. • Ensure government departments and municipalities actively procure from start-ups under schemes like S2G, possibly via a general Government Order (GO). • Provide dedicated support for compliance in districts, perhaps by appointing an accounts officer specifically for start-ups. • Address the GST burden for start-ups, perhaps through exemptions or changes to input credit rules.
Financial and Legal Guidance
• Develop benchmark guidance or standards for start-up-specific finance, valuation, accounting, and legal practices. • Train auditors, CS, and CAs on start-up requirements and provide a list of vetted professionals knowledgeable in the start-up ecosystem. A government-backed team for this support was suggested. • Provide periodic notifications about important filing deadlines (like GST) and potentially offer a "start-up kit" upon registration with key compliance information.
Educational Initiatives and Knowledge Sharing
• Organise webinars and sessions on legal compliances (including GST, IT, labour law), IPR, and other business aspects relevant to start-ups.

- Facilitate community interaction and networking forums for founders to share knowledge and support.
- Utilise platforms like a YouTube channel to share start-up stories and information on resources and compliance.
- Consider using AI models or expert Q&A platforms to provide understandable answers to compliance questions.

9.8 Start-up sustainability and scalability

Collaboration between Start-ups and Educational Institutions
• Establish formal collaboration between start-ups and educational institutions to align curriculum with industry needs and create a pipeline for skilled talent acquisition.
Talent Acquisition and Branding
• Create a system or platform to directly connect start-ups with suitable talent and potentially a centralized pool of skilled labour. • Develop programs to educate students and the public about start-ups and the benefits of working for them, highlighting the opportunities for learning and growth. • Brand start-up companies to make them more attractive to potential employees.
Regulatory and Policy Improvements
• Implement a streamlined, single-window system for regulations and compliance that is easily accessible for start-ups. • Train auditors and other professionals on start-up-specific regulations and compliance needs. • Relax policies and procedures (like EMD and minimum turnover criteria) to enable start-ups to participate in government tenders and access the market.
Funding and Financial Support
• Establish a bank or funding mechanism specifically designed for start-ups that understands and bets on innovative ideas rather than just proven success. • Provide clearer information and improve dissemination of government schemes and initiatives through accessible platforms like websites, portals, and videos. • Improve transparency in funding processes and reduce delays.

Infrastructure and Scaling Support
• Develop common infrastructure and hi-tech clusters with specialised equipment that start-ups (especially hardware/manufacturing) can access to reduce development costs and facilitate scaling. • Consider state-sponsored co-working spaces and funding based on Technology Readiness Level (TRL).
Mentorship and Validation
• Implement dedicated and domain-specific mentorship programs with experienced industry professionals who can provide practical guidance on business development. • Create a platform for validating start-up ideas and teams to build trust and facilitate access to funding and support.
Targeted Start-up Support and Engagement
• Implement dedicated and domain-specific mentorship programs with experienced industry professionals who can provide practical guidance on business development. • Create a platform for validating start-up ideas and teams to build trust and facilitate access to funding and support. • Identify and groom specific start-ups within districts, providing targeted support to address their unique challenges. • Organise regular meetings (every . -6 months) with start-ups to understand and help solve their ongoing problems.
Networking and Knowledge Sharing
• Facilitate networking opportunities where start-ups can connect with potential talent, collaborators, and experienced entrepreneurs (both successful and failed) to learn and get support. • Educate founders on the importance of delegation and roles like co-founder for handling non-core activities like compliance.
Clarification of Start-up Categories
• Clarify the distinction between start-ups (scalable businesses) and small businesses to ensure appropriate targeting of policies and support

Chapter 10

Summary and Recommendations

தெளிவும் திறமையும் தேற்றம் திறனும்
களிவும் கருவி கண்ணே.(Tirukkural 517)
Clarity, skill, insight, and joy-these are the tools of wise governance.

10.1 Summary of the report

Tamil Nadu has emerged as a significant regional player within India's third-largest start-up ecosystem, actively pursuing its ambitious goal of becoming a $1 Trillion economy by 2030. The state possesses distinct advantages, including a deep talent pool from its numerous academic institutions, robust manufacturing infrastructure, and a strategic coastal location. The launch of StartupTN in 2021 has given the impetus for start-up formation in the state, contributing to job creation and showcasing a good distribution of start-ups across different phases of the start-up lifecycle. The state has formulated a comprehensive "Innovation and Start-Up Policy (2023)" that emphasizes commitment to Provisions for Equitable Growth through targeted social interventions for marginalised communities, aligning with the "Dravidian Model" philosophy. Creation of infrastructure for nurturing start-ups is another important feature of the policy.

Tamil Nadu's policies that encourage entrepreneurship comprehensively address all most of the areas identified as critical for start-up support, viz., identifying and nurturing entrepreneurs, funding, support organisations, and regulatory frameworks.

The onus is on start-ups to take full advantage of the various schemes and initiatives of the government. The government has understood that funding remains a critical hurdle for start-ups, with information gaps, difficulty finding the right options, high competition, and stringent criteria posing major obstacles. To address this issue, the government has created various funding schemes such as the TANSEED, to kickstart private capital flow

to start-ups. In addition, women entrepreneurs face more difficulties in getting funding as compared to their male counterparts. To address this issue, several concessions have been offered to women founders in the funding schemes implemented by the government.

The government has encouraged public procurement from start-ups. However, available trends indicate low registration and participation rates due to a lack of awareness, perceived lengthy processes, and stringent eligibility criteria. Therefore, in addition to formal channels of public procurement, government has encouraged decentralized small value procurement whereby district collectors have been empowered to procure from start-ups for small value pilot projects without going through the conventional public procurement process. Access to skilled talent presents challenges, especially for nascent ventures as prospective employees hesitate to work in companies that have limited track record. The campaigns conducted by StartupTN would result in social acceptance of start-ups, thereby enabling the attraction and retention of talent.

Start-up founders have conveyed their appreciation to the initiatives taken by the government during the focus group discussions. They have also provided constructive suggestions to further enhance the impact of the policy. In the area of regulatory compliance, founders have suggest setting up a Legal Compliance Support platform and a Startup Helpline for start-ups to get proper guidance for various compliance. It is felt that aligning the policy intent and founders' actual experiences can improve the effectiveness of the policy manifold.

10.2 Recommendations

1. Enhance Accessibility and Simplify Processes for Schemes and Funding

- Improve access to the different StartupTN initiatives. Targeted outreach programs can ensure that start-ups are not just aware but can easily utilise resources, especially for mentoring, innovation literacy, and resource programs, which have lower access rates.
- Simplified application process for State Government funding that would further increase the number of people to applying to these schemes.
- New strategies to enhance information dissemination about the different government funds and the eligibility criteria would increase awareness.
- Measures to address the significant gender disparity in funding access can be further strengthened. Exclusive schemes for women founders or enhancing the proportion of funding to women founders in existing schemes can be looked into.

- Schemes that have been well received in other states could be considered for adoption in Tamil Nadu. Examples include, Gujarat's support for start-ups navigating the 'Valley of Death' stage, Odisha's provision of grants at different development stages, including monthly allowances, especially for minorities, or Kerala's support for distressed start-ups

2. Improve Market Access, with a focus on Public Procurement:

- Given the limited penetration of Government e-Marketplace (GeM) portal and difficulties experienced by the founders in navigating the same, Government of Tamil Nadu could explore the process of setting up parallel e-Marketplace specifically for start-ups. Such a parallel e-Marketplace can also address the underrepresented business types on the GeM portal, such as consulting, e-commerce, retail, and healthcare.
- There is a perception that public procurement tenders currently favour established companies. To enhance start-up participation, the eligibility criteria in public procurement tenders can be reviewed that makes it less intimidating for start-ups to participate.
- Information dissemination campaigns can be implemented to reassure entrepreneurs that tender application and evaluation process has always followed a transparent approach
- Explore initiatives similar to Maharashtra's Startup Week , which provides direct funding and work orders through public procurement opportunities.
- Educate start-ups on the strategic non-financial benefits of public procurement, such as market opportunities and enhanced credibility, which start-ups highly value.

3. Strengthen the Talent Ecosystem and Support Systems

- Nascent (Ideation-stage) ventures face a critical gap in accessing skilled talent. Start-ups are at a disadvantage in the talent marketplace as they are not able to complete with well-established companies. The state government can explore development of suitable programs linking early-stage start-ups with appropriate technical and marketings ales talent pools.
- There is shortage of incubation support and only few start-ups are able to become part of incubators. However, incubation is often a pre-condition to avail

government start-up schemes. This excludes many start-ups to access government schemes. Since it takes time to augment or increase incubation capacity, in the short term, schemes can be designed to enhance support for non-incubated start-ups as well.

- Founders are often unclear on why their applications for incubation support has been unsuccessful. To assuage the concerns of founders, incubators should be encouraged to streamline and increase transparency in their start-up selection process to mitigate challenges like delays, high competition, non-responsiveness, and the perceived influence of network connections.
- Since the incubators have reached a certain level of capability maturity, there is opportunity to set up Sector-Specific Incubators (as compared to generic purpose incubators), mirroring Odisha's approach, to provide specialised support within key industries like IT, Healthcare, and Agri Business.

4. Reinforce Social and Spatial Inclusion and Leverage Best Practices

- The state has made stellar progress in democratizing start-up formation by specifically targeting and encouraging the marginalized sections of the society to set up their ventures. Tamil Nadu's strong policy focus on Provisions for Equitable Growth which significantly supports marginalized communities,
- should continue and be built upon.
- Best practices for social inclusion from other states, such as Karnataka's support for Senior Citizens through initiatives like the Centre of Excellence for Assistive Technology, can be assessed for their suitability to be implemented in the state.
- Maintain the policy's equal weightage given to Regional and Sectoral development to ensure balanced growth across the state and within key industries. While TN leads in policy provisions for regional development, continued targeted efforts for Tier II and III cities would reinforce the progress that has already been achieved.

5. Integrate Sustainability and Accommodate Failure

- Funding and financial constraints have been the primary obstacles for both start-up sustainability and scalability. While state government schemes can provide the initial seed funding, the sustainable solution is to attract long term risk capital from private sector to invest in the state's start-ups. Government could consider formulating suitable schemes that enables private capital inflow.

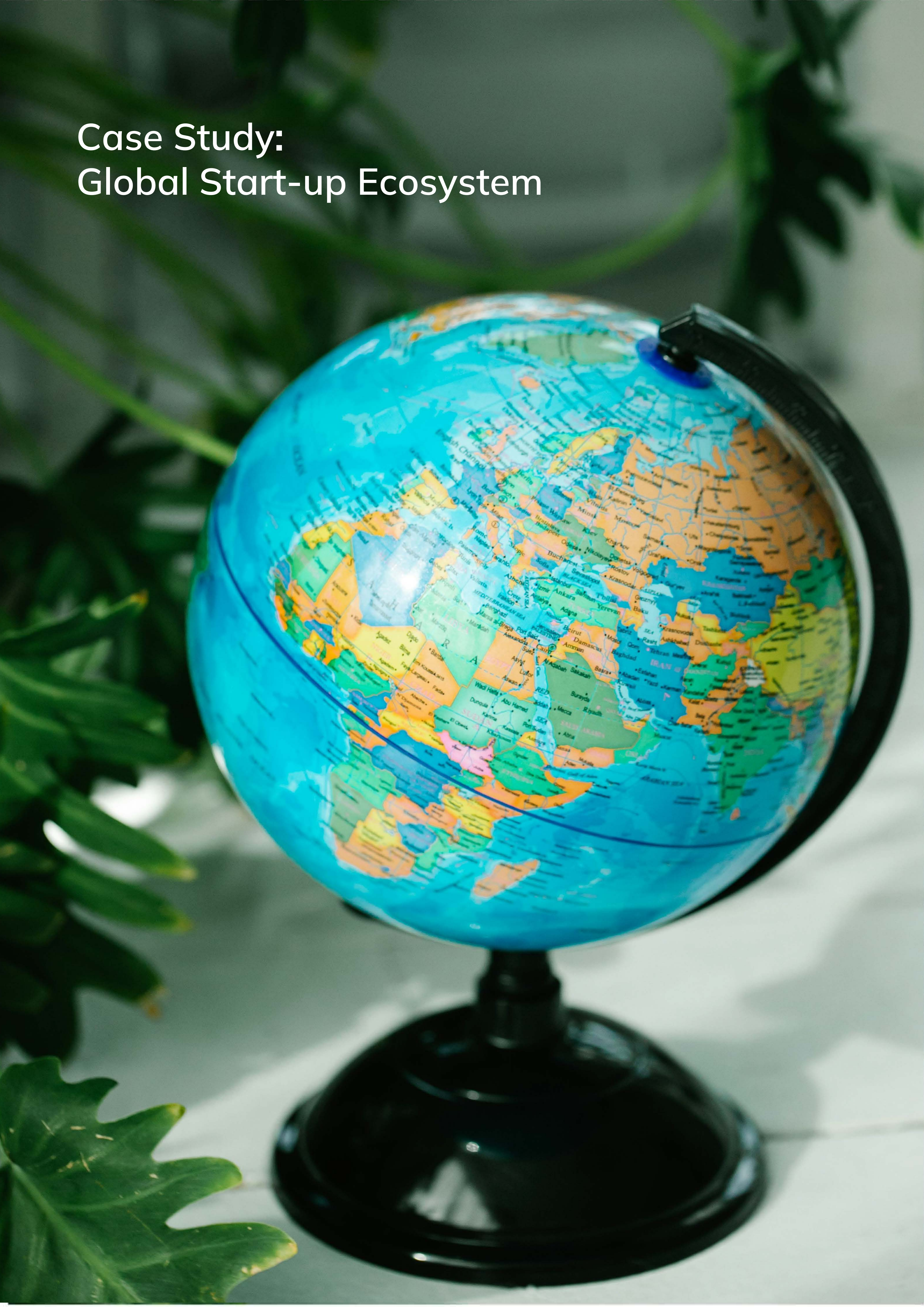
- Best practices related to Sustainability from other states, such as Karnataka's dedicated focus on Environmental Sustainability and the Circular Economy, can be assessed for their suitability in the state. Incorporate provisions for accommodating start-up failures, similar to Kerala's policy which includes winding up facilitation and Distress Funds. This creates a more stable environment and encourages risk-taking.
- Develop tailored support mechanisms to address sector-specific scaling challenges, such as operational complexity and talent retention for IT ventures, and hiring and retaining talent and accessing technology and infrastructure for non-IT start-ups.

6. Streamline and Simplify Regulatory Processes and Compliance

- Increase awareness and proactively disseminate information, potentially "pushing" it to start-ups through comprehensive websites, portals, informational videos, and booklets.
- The existence of a single-window system should be disseminated widely so that start-ups become aware that the single-window system is not just for large industries but equally relevant for start-ups.
- The set of advisors that businesses usually reach out to, viz., Auditors, Company Secretaries (CS), and Chartered Accountants (CAs) are not well versed with the compliance requirements pertaining to start-ups. Founders would find it extremely helpful they could access a well-trained team who can advise them on their compliance requirements. Such teams can be set in every district for easy access. In addition, Auditors, Company Secretaries (CS), and Chartered Accountants (CAs) can be encouraged to undergo refresher training on start-up requirements so that they could advice start-up founders appropriately.

Tamil Nadu is emerging as a significant player contributing India's global position as the third-largest start-up ecosystem, aiming to become a $1 trillion economy by 2030 with advantages including a strong talent pool, robust manufacturing infrastructure, and a strategic coastal location. These recommendations drawn from the data collection for this report and identified best practices, will help Tamil Nadu not only to continue its current momentum but also accelerate further. The recommendations would help the state strengthen its start-up ecosystem, overcome existing challenges, foster inclusive growth, and ultimately progress towards its $1 Trillion economy target.

Case Study:
Global Start-up Ecosystem



SILICON VALLEY

#1
Global Start-up Ecosystem

15,000+
Start-ups

337
Unicorns

Silicon Valley is the global hub of technological innovation and entrepreneurship, driven by a complex, interconnected ecosystem. This case study highlights its core pillars: the "triple helix" approach, the crucial role of Venture Capital (VC), and the impact of accelerators.

The Triple Helix Approach: Collaborative Synergy: The "triple helix" model, involving universities, industry, and government, is central to Silicon Valley's dynamism. This collaboration fosters knowledge transfer, talent development, and commercialisation.

Universities like Stanford and UC Berkeley are innovation engines, producing research, fostering entrepreneurship, and supplying skilled talent. Their intellectual property often forms the basis of new start-ups, and their alumni networks connect founders with resources.

Industry, encompassing tech giants and agile start-ups, forms the commercial core. Large corporations acquire start-ups, while start-ups introduce disruptive technologies. This concentration facilitates rapid knowledge exchange and talent mobility.

The Government provides crucial support through research funding, intellectual property protection, and favourable tax environments. It enables the ecosystem by establishing the regulatory and infrastructural backbone, encouraging risk-taking and competition.

The Fuel of Innovation: Venture Capital: Venture Capital (VC) firms are vital, providing financial fuel for high-growth, high-risk ventures. VCs invest in early-stage companies for equity, offering expertise, mentorship, and extensive networks. Their willingness to embrace risk is a defining characteristic. Firms like Sequoia Capital and Andreessen Horowitz have funded countless successful companies.

Catalysts for Growth: Accelerators and Incubators: Accelerators and incubators are crucial launch pads. Incubators offer shared space and resources for very early-stage ideas. Accelerators are intensive, fixed-term programs (3-6 months) providing seed funding, mentorship, and structured curricula in exchange for equity. Programs like Y Combinator and 500 Global rapidly transform ideas into viable businesses, connecting founders with a vast network of mentors and investors.

Culture and Future Outlook: Silicon Valley thrives on a culture of risk-taking, tolerance for failure, and belief in technology's transformative power. The dense network of entrepreneurs fosters rapid idea exchange. Despite challenges like high living costs and competition, its foundational strengths ensure its continued leadership in global innovation. The ecosystem constantly adapts, maintaining its relevance in the evolving global economy.

KEY TAKEAWAYS FOR TAMIL NADU

- Empower Tamil Nadu’s academic institutions to actively commercialise IP and build strong alumni networks for mentorship and startup support.
- Encourage strategic partnerships and acquisitions between large corporations and start-ups to accelerate innovation and knowledge exchange.
- Focus on simplifying regulatory frameworks and enhancing implementation to promote risk-taking and entrepreneurial growth.
- Attract VCs who offer mentorship, networks, and strategic insights, not just capital. Bridge gaps in awareness and access to private funding for startups.
- Make incubators more intensive and transparent, with better seed funding, mentorship, and streamlined selection, similar to Y Combinator's model.
- Normalise Failure as Learning: Introduce policies that support failed ventures and shift the narrative to resilience and experimentation, inspired by Kerala’s progressive approach.

NEW YORK

#2	9,000+	22	100+
Global Start-up Ecosystem	Start-ups	Unicorns	Incubators and Accelerators

New York City has established itself as the second-largest start-up ecosystem globally, consistently ranking #2 alongside London. Home to 25,000+ tech-enabled startups with an ecosystem value of $621B+, New York's start-up landscape represents a diverse, well-funded, and resilient entrepreneurial environment that rivals Silicon Valley.

Financial Performance and Investment Climate: New York demonstrates exceptional financial strength and investor confidence. Startup Genome rated New York second in global ecosystem funding, with $8.3 billion in early-stage funding compared to the global average of $4.3 billion. Recent performance has been impressive, with $13.1B raised January to July 2024, up 74 percent from the same point in 2023. The ecosystem hosts 9,000+ start-ups, 22 unicorns, and 100+ accelerators, incubators, bootcamps, and coworking spaces. It also rated third in global ecosystem talent, with an ecosystem value of $147 billion compared to the global average of $10.5 billion. This financial infrastructure benefits from New York's position as a major financial center, where "if you're a company looking to raise money, this is the place to be... New York is where the investors are".

Sector Specialisation and Innovation: New York is particularly strong in artificial intelligence, big data and analytics, cybersecurity, and the life sciences. It has the most AI and machine learning positions of any metropolitan area in the US, with NYC accounting for 14 percent of U.S. Seed and Series A fundraising in AI in 2024, bolstered by research institutions like NYU and Columbia. The city's cybersecurity sector benefits from Cyber NYC, a public-private initiative offering startup accelerators and resources. In life sciences, the ecosystem includes nine academic medical centers, more than 50 hospitals, more than 100 research foundations, and massive National Institutes of Health research grants that have helped start-ups raise more than $1 billion venture capital. Beyond technology, New York startups excel in finance, real estate, tourism, and established industries. Fashion, media, advertising, you name it, they're already headquartered here, providing startups with immediate access to industry expertise and partnerships.

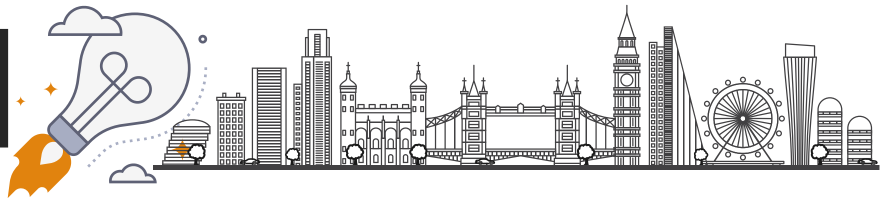
Talent and Diversity Advantages: New York's talent pool represents one of its greatest competitive advantages. The city benefits from exceptional diversity, with 8.5 million people from all walks of life, creating a market for virtually any product or service. The city is home to 73 Fortune 500 companies, 2.3 million people with bachelor's degrees (more than 1 million in science and engineering fields), and 410,000 women-owned businesses. Cultural and ethnic diversity further strengthens the ecosystem, with nearly half of New York's workers being born outside the US. The city has more than 381,000 self-employed minorities and more than 700,000 minority-owned businesses. The education system contributes significantly, with "New York has more graduate schools turning out MBAs than anyone else".

Government Support and Community: New York has implemented several support initiatives. START-UP NY gives new businesses the opportunity to operate tax-free for 10 years on or near eligible university campuses. The New Markets Tax Credit Program provides investment capital for development projects in low-income communities. The start-up community is characterised by collaboration and mutual support. "There's now a great ecosystem of founders and other entrepreneurs who really are supportive and want to see each other succeed". The city provides extensive resources, including specialised support for female founders through organisations like BBG Ventures.

KEY TAKEAWAYS FOR TAMIL NADU

- **New York's exceptional financial strength and status as a major financial center where "investors are", highlight the need for Tamil Nadu to intensify efforts to attract more private and global funding, as its current funding heavily relies on government and operational sources.**
- **Tamil Nadu should further cultivate specialised ecosystems that seamlessly integrate its traditional strengths in automotive, textiles, and manufacturing with startup innovation.**
- **Tamil Nadu needs to address the significant challenges early-stage ventures face in accessing skilled talent and bridge the observed gender disparity in female employee participation within startups.**
- **Tamil Nadu must ensure its comprehensive policies translate into a simpler, more navigable regulatory environment to overcome founders' reported struggles with compliance and bureaucratic hurdles.**
- **Tamil Nadu should actively cultivate and enhance accessible peer-to-peer support, networking, and knowledge-sharing opportunities among its start-up community.**

LONDON



#3	9,000+	137	132
Global Start-up Ecosystem	Start-ups	Unicorns	Incubator, accelerator and co-working spaces (IACs)

London's start-up scene has its roots in the early 2000s, with the emergence of the "Silicon Roundabout" in East London. This area, centred around Old Street, became a hotbed for early-stage tech companies and attracted significant investment from both local and international investors. Access to capital, investment and global talent has fuelled London's ascent over the past decade.

Financial Infrastructure and Investment: London's position as a global financial centre provides start-ups with exceptional access to capital. An average seed round in London is $650K, compared to a global average of $494K. The city attracted $13.5B in 2023, representing 65 percent of total UK VC investment, demonstrating the concentration of venture capital activity in the capital.

Global Connectivity and Market Access: London's strategic advantages include its favourable time zone and international connectivity. London-based companies can tap into global markets due to the UK's favourable time zone, with the city acting as a launchpad to scale and grow internationally. The city serves as a gateway for international expansion, being the leading destination for Chinese foreign direct investment into UK and Europe.

Sector Specialisation: London has developed particular strength in financial technology and educational technology. Fintech continues to dominate fundraising, accounting for 39 percent of the $4B raised by London-based companies in 2020. The edtech sector is equally impressive, with over 500 edtech companies and the UK's edtech sector is expected to reach $4.4B by 2021. The life sciences sector is also notable, with 350 medtech companies and world-leading universities like Imperial College London and King's College London driving innovation.

Government Support and Policy Framework: The UK government has established comprehensive support mechanisms that significantly strengthen London's start-up ecosystem. The government demonstrated substantial commitment through a £1.25bn support package for start-ups during the COVID-19 pandemic, while Innovate UK serves as the national innovation agency supporting business-led innovation across all sectors.

The most significant government contribution comes through tax incentives designed to encourage start-up investment. The Seed Enterprise Investment Scheme (SEIS) offers up to 50 percent income tax relief on investments up to £200,000 per year, with qualifying companies able to raise up to £250,000. For more established start-ups, the Enterprise Investment Scheme (EIS) provides 30 percent income tax relief on investments. Additional support includes R&D Tax Credits for companies focusing on science and technology advances and apprenticeship programs where the government covers up to 95 percent of training costs for businesses with annual pay bills under £3 million.

Support Infrastructure: The ecosystem benefits from a robust support network. Accelerators support an estimated 3,700 businesses and mostly rely on corporate/private funding sources, while incubators support an estimated 6,900 businesses and are usually funded by the public sector or universities. This dual approach ensures comprehensive support for start-ups at various stages of development.

KEY TAKEAWAYS FOR TAMIL NADU

- **Tamil Nadu must reduce its heavy reliance on state government and revenue funding by implementing tax incentives to attract more private and early-stage investments, while also streamlining complex application processes.**
- **Tamil Nadu needs to streamline public procurement processes and actively promote its GeM portal to increase startup participation beyond regional markets, potentially relaxing tender criteria.**
- **Tamil Nadu should further nurture its growing sectors like software by establishing dedicated zones for prototype testing and providing specialised infrastructure to reduce operational costs.**
- **Despite comprehensive policies, a significant gap exists in Tamil Nadu regarding awareness and utilisation of government schemes, highlighting the need for improved communication and simplified regulatory processes akin to London's robust framework.**
- **Tamil Nadu should expand its support infrastructure beyond academic institutions, offering comprehensive services including legal, IT, and marketing assistance, alongside quality mentorship.**

TEL AVIV-YAFO

#9 Global Start-up Ecosystem | **1,350+** Start-ups | **95+** Unicorns

Tel Aviv has emerged as one of the world's most productive start-up ecosystems, ranking 9th globally in venture capital investment and 3rd in unicorn production. With a combined enterprise value of $437 billion and producing 19 percent of EMEA unicorns despite receiving only 4 percent of seed funding, Tel Aviv demonstrates extraordinary efficiency in scaling startups into global champions.

Military Technology Transfer: The Israel Defense Forces' 8,200 Intelligence Corps serves as a crucial talent pipeline, identifying top STEM students and providing advanced technical training. This military-to-civilian technology transfer has produced innovations like PillCam, which repurposed missile guidance technology for medical applications. Mandatory military service creates leaders with command experience and technical expertise who transition into entrepreneurial roles.

Government Support Framework: Israel's government established the Yozma Programme in 1993, offering matching funds and tax incentives to foreign VCs. The Israel Innovation Authority operates over 40 programs with a $400 million annual budget, providing direct funding, IP incentives, and R&D grants. This comprehensive support enables companies to raise funds directly from government sources without traditional VC backing.

R&D Investment Excellence: Israel invests 4.1 percent of GDP in R&D, twice the OECD average and second-highest globally per capita. Over 300 multinational corporations have established R&D centers in Israel, accounting for 50 percent of business enterprise R&D expenditure.

Market Positioning and Specialisation: Tel Aviv has developed clear sectoral strengths leveraging its unique advantages. Cybersecurity remains dominant, with one in three global cybersecurity unicorns being Israeli companies. The city ranks second globally in cybersecurity investment and fourth in both generative AI and autonomous technology sectors. SaaS has become the ecosystem's primary business model, with 75 percent of VC investment flowing to SaaS companies over the past five years, compared to 44 percent globally.

Global Connectivity: Tel Aviv start-ups prioritise the US market from inception, recognising that success requires immediate global scale rather than local market validation. This strategy leverages strong Israel-US relationships and diaspora connections to access the world's largest technology market. Foreign investment dominates Tel Aviv's funding landscape, with 70 percent of funds coming from international sources.

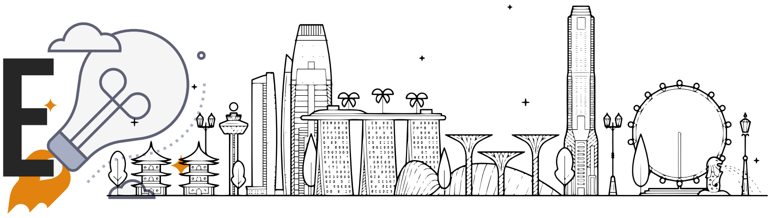
Talent Development and Recycling: The ecosystem demonstrates a powerful "founder flywheel" effect, where successful unicorns generate alumni who create new start-ups. Tel Aviv unicorns have produced founders who collectively launched over 180 VC-backed companies, creating a self-reinforcing cycle of entrepreneurial activity. Rather than exiting at $100-200 million valuations, founders increasingly pursue billion-dollar scaling strategies, creating more experienced operators who later become mentors and investors.

Cultural Advantages: Israel's geopolitical challenges have fostered a culture of necessity-driven innovation and resilience. The concept of "balagan" (productive chaos) encourages rule-breaking and creative problem-solving, while military service instills leadership skills and comfort with high-stakes decision-making. The ecosystem maintains positive attitudes toward intelligent failure, viewing unsuccessful ventures as learning experiences rather than career impediments.

KEY TAKEAWAYS FOR TAMIL NADU

- **Tamil Nadu should foster a mindset of high productivity and global ambition from inception, similar to Tel Aviv's focus on billion-dollar scaling strategies and efficient unicorn production despite low seed funding.**
- **Emulate Tel Aviv's model of applied technical talent development and a "founder flywheel" effect, recirculating experienced entrepreneurs as new founders, mentors, and investors within Tamil Nadu's ecosystem.**
- **Tamil Nadu should streamline and enhance direct and strategic government funding and IP support, providing transparent and less complex mechanisms, similar to Israel's comprehensive framework of direct grants and IP incentives.**
- **Encourage Tamil Nadu startups to prioritize global market access from inception, fostering international connections and a "global-first" strategy for scaling, mirroring Tel Aviv's immediate focus on the US market.**
- **Cultivate a culture of resilience and "intelligent failure" in Tamil Nadu, normalizing setbacks as learning experiences and providing clear support mechanisms for risk-taking, much like Israel's approach to necessity-driven innovation and productive chaos.**

SINGAPORE



#12 Global Start-up Ecosystem

41,229 Start-ups

#2 Ease of Doing Business Index

28 Unicorns

240 Accelerators

176+ Co-working spaces

Singapore's start-up ecosystem represents a best-practice model for how strategic government intervention, strong regulatory frameworks, and international connectivity can foster a thriving entrepreneurial environment. Its emergence as Asia's leading start-up hub reflects the effectiveness of its innovation policy and economic development strategy.

Government Support and Policy Framework: Singapore's government plays a pivotal role through strategic interventions and pro-business policies. The country offers one of the most favourable business environments globally, with a corporate tax rate of 17 percent and no capital gains tax, making it attractive to venture capital and start-up investors. Regulatory innovations, such as sandbox frameworks, allow start-ups to test new models in controlled settings. The Startup SG initiative exemplifies this support, offering targeted schemes across different stages of the start-up journey and positioning Singapore as a leading hub.

Regulatory Excellence and Legal Framework: Singapore's transparent and reliable legal system is a cornerstone of its start-up success. Clear regulations on business formation, ownership, governance, and IP protection instil confidence among entrepreneurs and investors. Regional venture capital firms often encourage start-ups to establish their legal base in Singapore to benefit from these protections. The government's regulatory agility is evident in initiatives like the Licensing Experimentation and Adaptation Programme, which pioneered sandbox approaches. The telemedicine sector, for instance, experienced rapid growth following the implementation of the 2018 sandbox.

Competitive Tax Environment: Singapore's fiscal policies offer compelling advantages. The 17 percent corporate tax rate undercuts regional competitors, and the absence of capital gains tax attracts venture capital and angel investors. Government co-investment strategies further strengthen the financial foundation by combining public capital with private sector expertise.

Comprehensive Talent Strategy: Singapore's multi-level approach to human capital development encompasses a robust education system that produces top-tier graduates in science, technology, and business. To address domestic talent limitations, streamlined visa systems like the S Pass facilitate international hiring. University-based technology centres and sector-specific institutes, such as the Energy Research Institute's incubator, bridge the gap between research and entrepreneurship. Multinational R&D facilities also contribute to talent development through collaboration and spillover effects.

Ecosystem Support Infrastructure: Singapore's start-up support network includes mentoring and acceleration programs across sectors. Specialised accelerators like Eduspaze (EdTech) and SPEAR (Energy) provide targeted guidance and networking. As a regional business hub, Singapore hosts numerous innovation forums and industry events that foster community and strengthen the innovation culture.

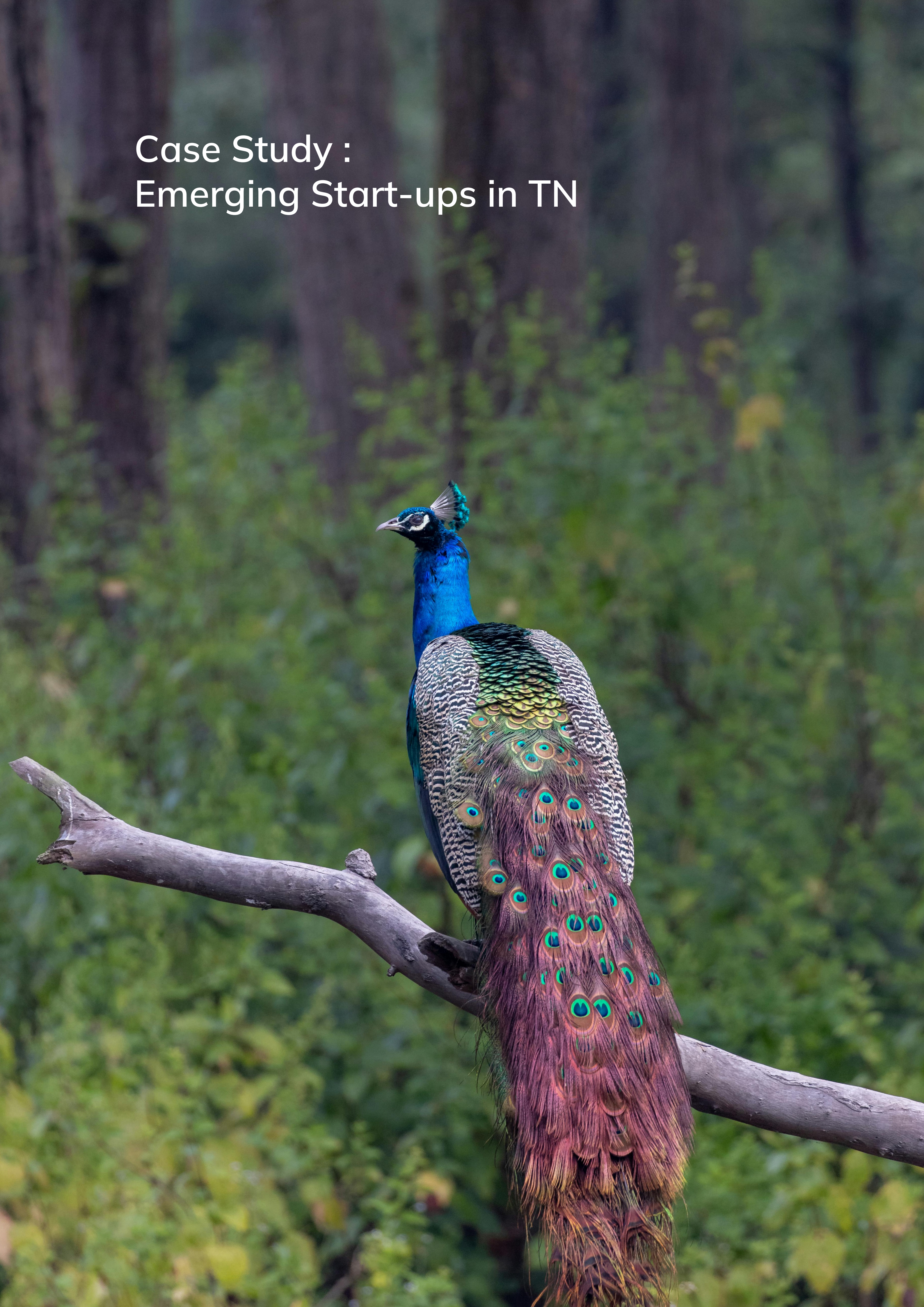
Co-Working Spaces and Startup Hubs: A defining feature of the ecosystem is the clustering of start-ups in collaborative hubs. Co-working spaces like WeWork, JustCo, and The Working Capitol offer flexible setups and community events that support networking and growth.

Public Sector Innovation Leadership: Singapore's government drives demand through openness to innovation and clean governance. The public sector acts as an early adopter of start-up solutions in education, healthcare, and environmental sectors. While procurement processes could be streamlined, the government's willingness to experiment provides crucial early-stage market validation.

KEY TAKEAWAYS FOR TAMIL NADU

- **Tamil Nadu could adopt policies like Startup SG Investor, through which the government has offered tax exemptions on Venture Capital Fund Incentives (VCFI) and Fund Management Incentive (FMI) to encourage more investment by private players in the ecosystem.**
- **An initiative to increase market access for state startups could be done by adopting Co-Innovation and Acceleration programmes within the country and with global partners.**
- **An increased focus on talent acquisition and development through sourcing of skilled workers from within the country and through global efforts could be beneficial to increase the talent pool within the state.**
- **Tamil Nadu could work on the development of Venture Builder/ Start-up Studio models in collaboration with the corporate institutions of the state to utilise their knowledge and expertise and bring out successful start-ups. This will ensure that support is offered to start-ups throughout their lifecycle, which is validated by experts in key industries.**

Case Study :
Emerging Start-ups in TN



AVENTOSE ENERGY (Aventose Energy Private Limited)

Thiruvallur, Tamil Nadu

Founders: Gayatri Soni, Vilas Tank

Industry: Motor Vehicle Manufacturing (Electric Vehicles)

"Aventose Energy's strong focus on customer experience and technology will provide reliability, durability, safety and performance similar to the best petrol vehicles in the market like Hero Splendor and Honda Activa".

Aventose Energy, launched in 2021, is a start-up that designs, develops and manufactures electric two- and three-wheelers as durable and hassle-free electric alternatives. The performance provided by their products is equivalent to their petrol counterparts, enabling people to adopt electric mobility to mitigate climate change. They are manufacturers of rugged electric two (scooter and motorcycle) and three (passenger and cargo) wheelers. Their product is designed to be a market fit for both Indian and global markets. The current models of Avetrose target multiple demographics (age, gender, income), geographies (global, domestic, urban and rural) and use B2B and B2C business models to best fit the needs of the customers.

Aventose Energy has drafted a 10-year roadmap for both their product and technology fronts, as the start-up plans for a long-term stake in the country's electric vehicle space. Their plan is to start with electric vehicles such as the two, three wheelers and then grow into other clean tech products. Aventose Energy's patented scalable platform offering the portfolio of electric 2-wheeler products will address the bottlenecks of EV adoption such as high price, low durability, and product instability. It will further help the government achieve its target of 30 percent EV adoption by 2030.

Funding Details

Round Date	Round Amount	Round Valuation
Mar 2022	₹5 Million	₹2015 Million
Dec 2020	₹25 Million	₹1986 Million

Investors

Angel Investors

- Magnus Larsson
- Markus Gustafsson

Banks and Financial Institutions

- HDFC Bank Limited

Avg. Public Rating (Out of 5)

4.8 (14.0 reviews)

INDIASPEAKS RESEARCH LABS (IndiaSpeaks Research Labs Private Limited)

Madurai, Tamil Nadu

Founders: Dr.Madhavaraj Ayyavu, Ayyavu Sasidharan

Industry: IT Services & IT Consulting (Multi- Lingual Voice Solutions)

"We're the architects of tomorrow's conversations, where AI transcends the limits of speech, thought, and imagination. We're not just builders of AI, but guardians of ethics. We prioritize transparency, security, and inclusivity, ensuring our solutions serve all corners of society."

Indiaspeaks Research Labs, aka. IndiaSpeaks, founded in 2021, is a startup that is focused on enhancing business accessibility through VoiceTech. Their venture is focused on enabling communication beyond linguistic boundaries by breaking the language barriers in India. The company prides on their development of AI solutions that transcend speech, thought, and imagination, while prioritizing transparency, security, and inclusivity. Their vision is to provide Language-as-a-service (LaaS) and become a successful leader in voice-first interaction by creating value to our customers and end users. And their mission is to break the language barrier in the internet space and provide easy accessibility of services for millions of Indian users. Their B2B model has successfully served various industries including entertainment, edtech, fintech, and call centres.

Funding

TANSEED
SC AND ST FUNDS

The latest investment from Honeywell Hometown Solutions India Foundation in collaboration with IISc's Society of Innovation and Development (SID) to support deep-tech startups. It came as a grant investment that further signified the recognition and support for the company's vision. IndiaSpeaks Research Labs presents a prospect for development, with their invested focus on ethical AI solutions and a clear vision for the future of communication and technology in India.

Incubation and Accelerators: Society for Innovation and Development, IISC Bangalore

Funding Details

Round Date	Round Amount	Funding Type
May 2023	₹20 Million	TAMIL NADU SCHEDULED CASTE (SC) AND SCHEDULED TRIBE (ST) STARTUP FUND (Govt. Funding)
Mar 2023	₹20 Million	TAMIL NADU STARTUP AND INNOVATION MISSION (TANSEED) (Govt. Funding)
Jun 2022	₹2 Million	STARTUP INDIA SEED FUND SCHEME (SISFS) (Govt. Funding)

PROKLEAN TECHNOLOGIES (Proklean Technologies Private Limited)

Chengalpattu, Tamil Nadu

Founders: Dr. Sivaram Pillai, Chandrasekar B

Industry: Biotechnology Research (Green Chemicals and Biodegradable Products)

"Based on a third party study on carbon footprint for some of the products, the team has found that our products have up to 80 percent lower carbon footprint than conventional products. So far, Proklean has helped save 6,500+ MT of CO2 release. These numbers are significant, given the comparatively small scale of the company's operations in the initial years. As we scale up, we would have a significant impact on CO2 reduction."

Proklean Technologies, established in the year 2012, focuses on development of innovations in Green Chemistry that help make the world a better place to live for our future generations. They have developed proprietary technologies by using renewable input materials to make products that provide solutions to problems such as pollution caused by multiple industries and depletion of renewable resources. The vision of the company is to become the most innovative Green Chemistry company globally. Their Mission is to harness Green Chemistry to make products that are safe, reduce pollution and environmental impact, and conserve precious natural resources, thereby making the earth a better place for future generations.

Valuation: Pony

No. of patents: 14

No. of Trademarks: 1

The company is focused on researching, developing, manufacturing and marketing of non-toxic, biodegradable formulations as a replacement for chemical surfactants and sequestering agents. The company has established multiple lines of business in both B2B and B2C models including in materials like leather, textile, pulp and paper, and products for institutional and home cleaning. In 2023, they raised $4 million in strategic funding from a venture capital firm supporting environmentally friendly start-ups known as Raintree Family Office. The start-up plans to utilise the funds to strengthen its research and development (R&D) division and expand its workforce through hiring initiatives.

Funding Details

Round Date	Round Amount	Funding Type
Jun 2023	₹330 Million	RAINTREE FAMILY OFFICE (VC/Network)
Oct 2020	₹101 Million	SIANA CAPITAL MANAGEMENT (VC/Network)
Dec 2019	₹200 Million	SIANA CAPITAL MANAGEMENT (VC/Network)
Feb 2019	₹18 Million	Angel and VC/Network Funding
Nov 2017	₹25 Million	Angel Funding

JASCON ENERGY PRIVATE LIMITED

Tiruchirappalli, Tamil Nadu

Founders: Arulandam Micheal, Wilson Jasmine, Wilson Michael

Industry: Renewable Energy Manufacturing (Solar Energy and Energy Storage Solutions)

"The perpetual price hike in fuel – Petrol and Diesel – has led us to conceive the utmost solution to counter the present fuel crisis, thereby allowing us to emerge as a socially responsible business, christened 'Jascon Energy'."

Jascon Energy, was launched in 2013, as a means to fill the void in the market for quality lithium batteries. The company decided to find an economical solution for the same. It further developed into a Solar Energy and energy storage Solutions company with a focus on Product Quality. It was combined with a dedicated after-sales service to provide a sustainable, innovative and cost-effective solution to ever increasing eco energy needs of India.

National Start-up Award

Finalist (Energy -Energy Efficiency), 2021

No. of patent

1

They are a fast growing company with a significant presence in the 'ECO Energy Conservation' sector. The goal of the sector is to strictly adhere to Eco-Friendly procedures, by keeping a close check on our business impact on the World Environment. The company also believes in the importance of environmental awareness.

Funding Details

Round Date	Round Amount	Funding Type
Feb 2020	₹10 Million	CREDIT GUARANTEE FUND TRUST FOR MICRO AND SMALL ENTERPRISES (CGTMSE) SCHEME, MINISTRY OF MSME (Govt. Funding)
Feb 2020	₹10 Million	CREDIT GUARANTEE FUND TRUST FOR MICRO AND SMALL ENTERPRISES (CGTMSE) SCHEME, MINISTRY OF MSME (Govt. Funding)

Avg. Public Rating (Out of 5)

4.3 (40.0 reviews)

REGENO VENTURES (Regeno Ventures Private Limited)

Tiruppur, Tamil Nadu

Founders: Sel Ven Cibhusudhan, Sel Ven Sugidharan

Industry: Plastics Alternative

"Plastic is any day a cheaper option compared to any biodegradable option that exists – be it bags, plates, cups, plastic is always cheaper. So, we had to work around the strategy to get people to avoid plastic and switch to a biodegradable, eco-friendly option instead."

Regeno Ventures, launched in 2017, is a start-up that offers a solution for plastic alternatives made from native cassava starch and other vegetable oil derivatives. The product is made of a non-toxic solution that is completely soluble in hot water and is disposable.

National Start-up Award	Finalist (Environment - Industrial Biotechnology), 2021
CII Startuprenuer Award	Winner (Circular Economy Domain), 2022

Their mission is to spearhead the mission towards regeneration of the world's damaged ecosystems. To focus on the start of such a mission, they found a solution to one of the most common pollutants on this planet: Single use plastic carry bags. Their products are 100 percent plastic free and are made entirely from vegetable starch and other natural extracts. These bags are harmless to the plants, animals and all the environment.

Incubation and Accelerators:

- Nadathur S Raghavan Centre for Entrepreneurial Learning (NSRCEL), IIM Bangalore
- PSG-Science & Technology Entrepreneurial Park (PSG-STEP), Coimbatore
- Vel Tech TBI - Technology Business Incubator, Chennai

Funding Details

Round Date	Round Amount	Funding Type
Jan 2024	₹4 Million	CREDIT GUARANTEE FUND TRUST FOR MICRO AND SMALL ENTERPRISES (CGTMSE) SCHEME, MINISTRY OF MSME (Govt. Funding)
Aug 2022	₹1 Million	NIDHI SEED SUPPORT PROGRAM (NIDHI-SSP), DEPARTMENT OF SCIENCE AND TECHNOLOGY (Govt. Funding)
Mar 2022	₹4 Million	CREDIT GUARANTEE FUND TRUST FOR MICRO AND SMALL ENTERPRISES (CGTMSE) SCHEME, MINISTRY OF MSME (Govt. Funding)
Mar 2021	₹2 Million	ATAL NEW INDIA CHALLENGE (ANIC), ATAL INNOVATION MISSION (Govt. Funding)
Mar 2019	₹1 Million	NIDHI - PROMOTING AND ACCELERATING YOUNG AND ASPIRING TECHNOLOGY ENTREPRENEURS (NIDHI-PRAYAS), DEPARTMENT OF SCIENCE AND TECHNOLOGY (Govt. Funding)

TAMS TRIBAL GREEN FUELS (TAMS Tribal Green Fuels Private Limited)

Erode, Tamil Nadu

Founders: Jollan Siruvadivel, Masannan Balan

Industry: Green Fuel

“Plastic is any day a cheaper option compared to any biodegradable option that exists – be it bags, plates, cups, plastic is always cheaper. So, we had to work around the strategy to get people to avoid plastic and switch to a biodegradable, eco-friendly option instead.”

TAMS Tribal Green Fuels, founded in 2023, promoted the development of lantana as an alternate fuelwood source offering several benefits for industries. Lantana briquettes are known to have a higher calorific value which results in cost savings and less fuel usage. The use of this fuel can reduce the industries carbon footprint and contribute to global efforts to address climate change. Additionally, this assists in the eradication of the invasive lantana plant and supports sustainable forest management. It alsocreates economic opportunities and improves livelihoods in local communities.

Tamil Nadu Government Funding

SC and ST FUNDS

In 2023, they gained an investment of 25 lakhs through StartupTN via the SC/ST Funds. They received the funding to facilitate and manufacture biomass briquettes out of Lantana camara, an invasive weed. It was also to improve the livelihood of the tribal settlements with an attempt to save their forests by de-weeding.

Funding Details

Round Date	Round Amount	Funding Type
May 2023	₹20 Million	TAMIL NADU SCHEDULED CASTE (SC) AND SCHEDULED TRIBE (ST) STARTUP FUND (Govt. Funding)

NANJIL NADU KANI TRIBAL WOMEN CREATIONS PRIVATE LIMITED

Kanyakumari, Tamil Nadu

Founders: Bindhu Sureshkumar, Dassayyan Vincent, P Saraswathi

Industry: Food and Agriculture

Founded in 2023, Nanjil Nadu Kani Tribal Women Creations Pvt Ltd, is a Kanniyakumari-based company formed and run by tribal women. In 2023, 5 startups received Rs 6.5 cr equity investment from Tamil Nadu govt. Nanjil Nadu Kani Tribal Women Creations Pvt Ltd was one of the start-ups to gain an investment grant of Rs 25 lakh. . They are an active player in the food and agriculture industry.

Tamil Nadu Government Funding | SC and ST FUNDS

The funds raised will be used to improve their community's supply of pepper and honey. They also aim to set up a packaging department. At present, they can only hold a small customer base through a physical store. Still, they are gradually becoming ready to sell their distinctive honey with extra value online to reach a wider audience. Ginger, pepper, and moringa flavors are blended into this unique honey. The community's overall level of living and means of livelihood are expected to rise with increasing sales and purchases.

Funding Details

Round Date	Round Amount	Funding Type
Dec 2023	₹2 Million	TAMIL NADU SCHEDULED CASTE (SC) AND SCHEDULED TRIBE (ST) STARTUP FUND (Govt. Funding)

PUNAR (Punar Rehab Solutions Private Limited)

Vellore, Tamil Nadu

Founders: Charmu Vinodbhai Pabari, Rahul Tripathy, Soumyajyoti Mukhergee, Sharmila Nageswaran

Industry: Medical Equipment Manufacturing

"ah! Ventures has invested in Bengaluru-based robotic devices startup Punar Rehab Solutions, which is building an ecosystem of data-driven physiotherapy in India, through its First Gear Platform."

Punar Rehab Solutions Private Limited, launched in 2019, specialises in the development of portable robotic physiotherapy devices for the rehabilitation of neuro-muscular patients. Nucleus, their flagship product, is an exoskeleton-based device designed to treat hand muscle spasticity. It enables physiotherapists to create personalised training sessions and track the real-time progress of patients through quantitative recovery reports.

Tamil Nadu Government Funding: TANSEED

PATENTED

No. of patent: 1

The company's mission is to revolutionise the healthcare industry through the development of state-of-the-art Robotic Assisted Rehab Devices. The products created by the company are not only data-driven but also designed to expedite patient recovery, ultimately allowing individuals to regain their normal lives more swiftly.

Incubation and Accelerators:

- Assistech Foundation (ATF)
- T-Hub Foundation, Hyderabad
- VIT-Technology Business Incubator (VITTIB), Vellore

Funding Details

Round Date	Round Amount	Funding Type
Aug 2023	₹2 Million	TAMIL NADU STARTUP AND INNOVATION MISSION (TANSEED) (Govt. Funding)
Mar 2022	NA	AH! VENTURES, CHENNAI (VC/Network)
Jun 2020	₹3 Million	BIRAC SUSTAINABLE ENTREPRENEURSHIP AND ENTERPRISE DEVELOPMENT FUND (SEED FUND) (Govt. Funding)

ELECTRODRIVE POWERTRAIN SOLUTIONS (Electrodrive Powertrain Solutions Private Limited)

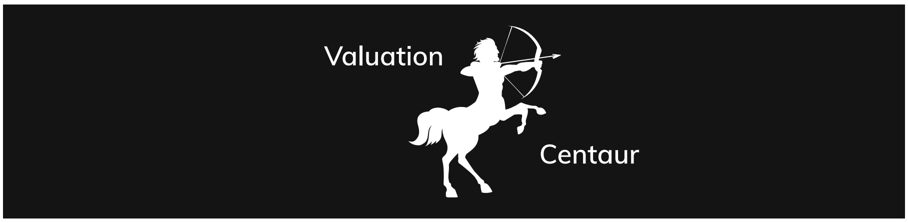
Coimbatore, Tamil Nadu

Founders: Chinmaya Rajiv Joshi, Jayachandaran Anand

Industry: Electric Vehicle Powertrain and New Energy Solutions

"We are working on a dozen different projects, three of which are supposed to come out in this year itself; one of them is a reverse trike (two wheels in the front and one wheel at the rear); these are the kinds of products that we are working on. And, of course, bidding for three marque projects on electric cars - one European, one Japanese, and one Chinese company"

Electrodrive Powertrain Solutions, founded in 2017, is a developer of EV powertrain systems. The company focuses on manufacturing EV powertrains, traction power and control systems, battery packs, chargers, etc. The platform has enabled EV manufacturers to develop pollution-free transportation.



The company's mission is to accelerate sustainable mobility, delivering innovative, high-performance solutions that make electric vehicles and battery energy storage systems more affordable, experience-rich, and efficient.

Their proprietary AI-powered eVehicle OS transforms electric driving experiences using real-time adaptive technology to enhance performance and personalise every journey. Their expert teams adapt the electric powertrain technologies with a systematic approach to design and development, focusing on real-world range, torque, and efficiency optimisation, keeping safety and sustainability at the core of our solutions. The company has also collaborated with global partners to create electric mobility solutions.

Funding Details

Round Date	Round Amount	Round Valuation	Funding Type
Oct 2022	₹2061 Million	₹14999 Million	GEF CAPITAL PARTNERS (VC/Network)

Avg. Public Rating (Out of 5)

4.7 (16.0 reviews)

QUANTIC TECH ANALYSIS (Quantic Tech Analysis Private Limited)

Chengalpattu, Tamil Nadu

Founders: Duraipandi Senthil Kumar, Sarvani Rao

Industry: IT, Digital Solutions, Consulting and Services

Quantic Tech is a forward-thinking AI startup founded in 2021, driven by a deep fascination with artificial intelligence and a mission to unlock its transformative power. With a passionate team dedicated to pioneering research and real-world scalability, the company has established itself as a leader in delivering intelligent systems that empower businesses to achieve operational excellence. From revolutionising manufacturing processes to enhancing enterprise operations and security, Quantic Tech's solutions are built on the principles of ethical innovation, integrity, and collaboration. Headquartered in Tamil Nadu's SIPCOT tech hub, the company is strategically positioned to serve both local and global markets.

Funding

TANSEED

The impact of Quantic Tech's work is already visible in how they're reshaping manufacturing, enterprise operations, and security systems. Their technologies help businesses streamline workflows, reduce risks, and make smarter decisions, ultimately driving operational excellence. Beyond commercial success, they're committed to making a positive societal contribution, whether it's through safer workplaces, more efficient resource use, or empowering organisations to adapt in a rapidly evolving digital world.

Funding Details

Round Date	Round Amount	Funding Type
Dec 2022	₹1 Million	TANSEED (Govt. Funding)

Avg. Public Rating (Out of 5)

5.0 (4.0 reviews)

Annexures

ANNEXURE 1 - METHODOLOGY

1.1 Methods

A mixed-method approach was employed, integrating data collected from both primary and secondary sources, and combining qualitative and quantitative data collection and analysis. While each approach addresses distinct questions individually, their combination provides more comprehensive insights.

Secondary Data Review: An extensive secondary data review was conducted to explore policies related to the Tamil Nadu start-up ecosystem and those from other selected states. Data was gathered from various sources, including the IIT Madras-YNOS Platform and StartupTN.

Primary Data Collection - Survey: Surveys were conducted with start-ups to gather insights on the challenges they face and the opportunities they identify.

Primary Data Collection - Focus Group Discussions (FGDs): In addition to surveys, FGDs were held with start-up founders to gain rich insights into the area of study.

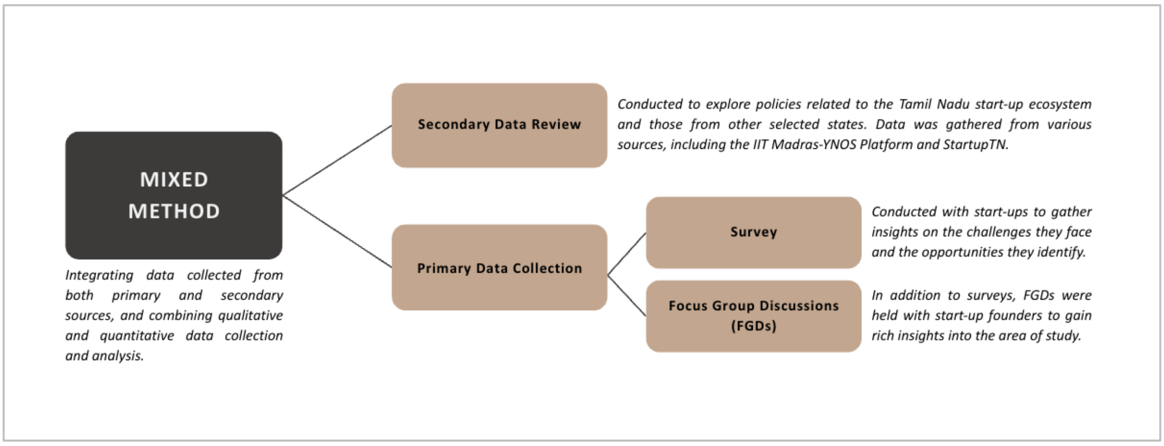


Figure A1.1: Sampling coverage for surveys

1.2. Sampling Approach

Due to their distinct methodologies and objectives, the surveys, focus group discussions, and case studies each employed different sampling strategies.

1.2.1. Surveys

The research examined registered start-ups throughout Tamil Nadu, focusing on cities and towns that had a minimum of 90 registered start-ups to ensure sufficient sampling in each area. The sampling strategy prioritised representation across different regions of the state and various city/town categories, and a total of 10 locations were selected for the survey. The selected cities and towns for the survey are shown in Table A1.1.

Location	No. of DPITT registered start-ups*	City and Town Classification	Region
Chennai	4,855	Tier I	North
Vellore	119	Tier II	North
Cuddalore	61	Tier III & others	East
Thanjavur	112	Tier II	East
Coimbatore	1,119	Tier II	West
Erode	203	Tier II	West
Madurai	285	Tier II	South
Tirunelveli	99	Tier II	South
Namakkal	103	Tier III & others	Central
Tiruchirappalli	222	Tier II	Central
Total	7,778		

Table A1.1: Sampling coverage for surveys

To achieve statistical significance with a 95 percent confidence level and +/-5 percent margin of error, the minimum required sample size was 364 start-ups. Keeping 365 as the minimum required sample, a total number of 500 start-ups were planned to be surveyed for the study.

The sampling frame with 7,778 registered start-ups was obtained from the YNOS Venture Engine[1], an IITM-incubated start-up.

Sampling methodology: The sample selection followed a systematic approach using Python and a Mixed Integer Linear Programming (MILP) model. In order to ensure that the sample accurately represents the population under study, constraints were used while sampling (Refer to Figure A1.2). Constraints help avoid bias, control for various factors and ensure diversity within the sample. The data processing flow from the sampling frame to the final sample is presented in Figure 2.

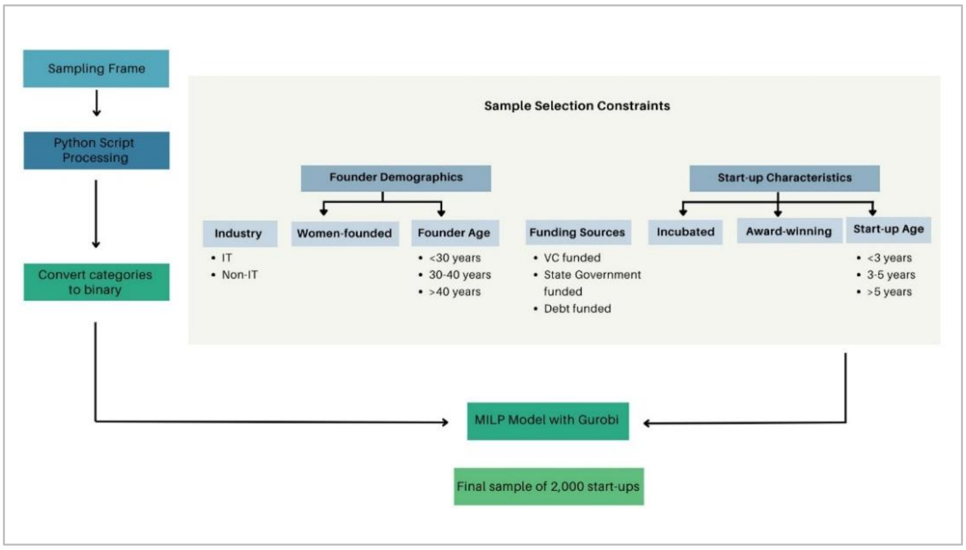


Figure A1.2: Data processing flow

[1] https://www.ynos.in/

A custom Python script was developed to systematically select the sample of start-ups. The process involved two main steps:

- First, the script pre-processed the start-up database by converting categorical variables (like city, awards, and industry type) into binary indicators. For instance, a start-up in Chennai would receive a value of '1' for the 'If_chennai ' variable, while all other start-ups would receive a '0'.
- Second, the script implemented a Mixed Integer Linear Programming (MILP) model using Gurobi to optimize the sample selection. The model assigned each start-up a binary decision variable ('1' for selection, '0' for exclusion) and incorporated two types of constraints:
    - Minimum representation requirements for each category (e.g., city, industry type)
    - Overall sample size target of 500 start-ups

The model's objective function was set to minimize the total selections while satisfying all constraints, ensuring an efficient sample that met all representational requirements.

1.2 2 Focus Group Discussions

Focus Group Discussions were conducted to gather in-depth insights into start-up growth opportunities and key challenges encountered by entrepreneurs.

1.3 Data Collection

The survey data were collected using computer-assisted personal interviews (CAPI). The data collection was conducted by Modulus Research and Analysis Pvt. Ltd., beginning with a comprehensive one-day training session on December 23rd, 2024, at their office. The training, led by CREST IITM, focused on:

- CAPI-based data collection using tablets
- Detailed review of survey questions
- Ethical guidelines, including informed consent and confidentiality protocols
- Potential field challenges and solutions

The training session was attended by 23 team members, comprising:

- 1 Field Manager
- Field Executives
- 19 Investigators

Following the training, field operations commenced on December 26th, 2024, initially in Chennai and Coimbatore, before expanding to other selected locations. The field investigators met the respondents at their registered start-up office. The surveys were carried out using tablets with integrated monitoring features, such as recording the interview duration, capturing GPS coordinates, and taking photographs. A total of 422 interviews were completed.

Location	No. of DPITT registered start-ups*	City and Town Classification	Region	Sample Size Covered
Chennai	4,855	Tier I	North	120
Vellore	119	Tier II	North	25
Cuddalore	61	Tier III & others	East	25
Thanjavur	112	Tier II	East	25
Coimbatore	1,119	Tier II	West	102
Erode	203	Tier II	West	25
Madurai	285	Tier II	South	25
Tirunelveli	99	Tier II	South	25
Namakkal	103	Tier III & others	Central	25
Tiruchirappalli	222	Tier II	Central	25
Total	7,778			422

Table A1.2: Sample size covered

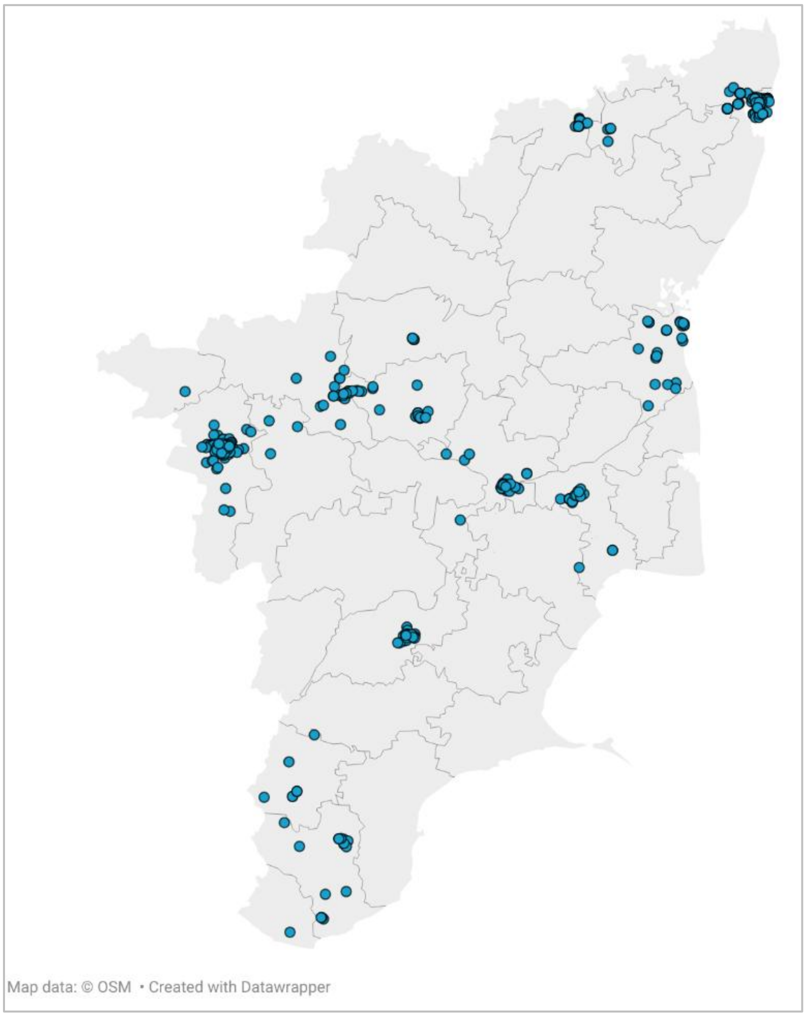


Figure A1.3: GPS points of successful surveys

The Focus Group Discussions commenced on November 22nd, 2024, with CREST IITM serving as moderators. With participants' consent, the discussions were both audio recorded and documented through written notes. To capture perspectives through a gender lens, two separate FGDs were conducted: one for male founders and another for female founders. The participants for the FGDs in Chennai were selected and finalised by CREST IITM. For the other locations, CREST IITM coordinated with the StartupTN Regional Hubs to select the participants and conduct the FGDs. A total of 11 FGDs were conducted across the state. The details of the FGDs conducted are presented below in Table A1.3.

S.No	Location	Date	FGD Venue
1	Chennai	22.11.2024	IITM Research Park
2	Chennai	03.12.2024	Seminar Hall, Department of Management Studies, IITM
3	Salem	23.01.2025	Sona Incubation Cell, Sona College of Engineering, Salem
4	Tiruchirappalli	24.01.2025	Indira Ganesan College of Engineering, Tiruchirappalli
5	Cuddalore	27.01.2025	CK Engineering College, Cuddalore
6	Thanjavur	05.02.2025	District Industrial Centre, Thanjavur
7	Madurai	06.02.2025	StartupTN Regional Hub Office, Madurai
8	Tirunelveli	07.02.2025	StartupTN Regional Hub Office, Tirunelveli
9	Vellore	25.02.2025	TBI, Vellore Institute of Technology, Vellore
10	Coimbatore	15.04.2025	TBI, Kongu College of Engineering, Erode
11	Erode	16.04.2025	TANCOIR, Coimbatore

Table A1.3: Details of FGDs conducted

1.4 Data Analysis

A systematic approach was followed for the primary and secondary data analysis as presented in Figure 4.

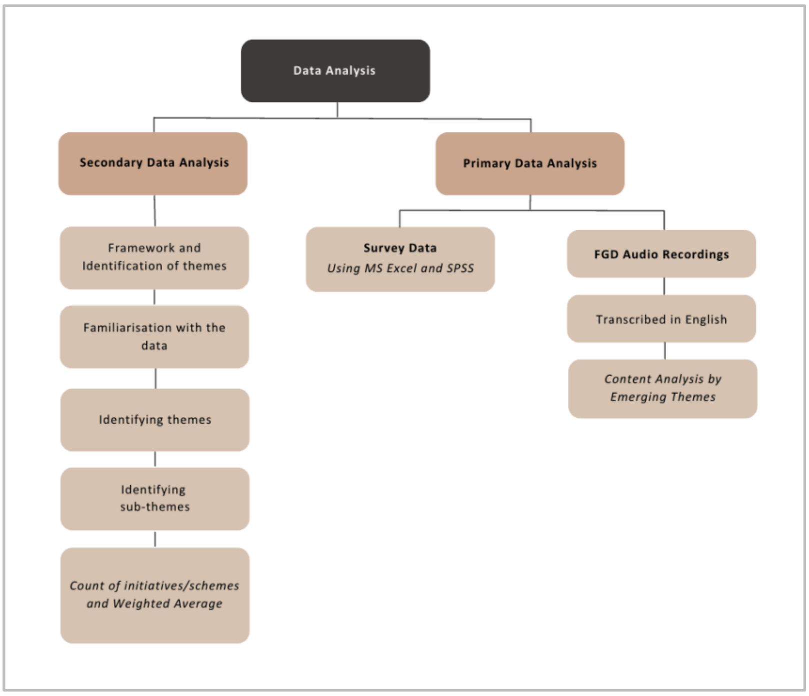


Figure A1.4: Data Analysis Approach

1.4.1 Secondary data analysis

The secondary data for policy analysis was analysed using a methodical process that involved several key steps to identify and analyse data to identify patterns or themes useful to the research objectives. The thematic analysis focused on systematically breaking down the data so significant aspects of the content could be interpreted, providing insightful analysis relevant to their research questions.

Framework and identification of themes

The framework used for the analysis has been recommended for the evaluation of SME and Entrepreneurship policies by the Organisation for Economic Cooperation & Development (OECD). While the initiatives have been studied, a maximum of 9 themes (Refer to Chapter 3) have stood out prominently as being critical for the success of the start-up ecosystem growth.

Familiarisation with the data

The initial step in thematic analysis was to become thoroughly acquainted with the data. This involved immersive reading and re-reading the policy documents to gain a deep understanding of their breadth and depth. During this phase, initial ideas, impressions, and potential patterns were identified that merit further exploration.

Identifying themes

Following data coding, we systematically organised the information under pre-identified nine themes through a three-tiered review process. First, we conducted comprehensive

thematic word searches using both exact terms and related vocabulary to ensure complete data capture. Second, we verified each theme against its corresponding extracts to confirm coherent pattern formation. Third, we evaluated each theme for distinctiveness and meaningful relationship to other identified themes. Throughout this analytical phase, we refined the thematic landscape by splitting or combining themes as necessary, ultimately producing a more precise and representative thematic mapping of the data.

Identifying sub-themes

Having identified the themes, the next task was to define and refine them by identifying sub-themes. This process involved a deeper examination of the nuances within each major theme, allowing us to capture more granular patterns and variations in the data. These sub-themes provided greater analytical precision, enabling us to articulate the complexity within broader conceptual categories without losing their coherence. Through this process, a total of 29 sub-themes were identified.

Count of initiatives/schemes and Weighted Average

Under each of the themes and related sub-themes, the number of initiatives or schemes was counted to understand the extent of coverage or attention given by the policy to particular areas. This quantitative approach helped gauge the degree to which a policy addressed all or specific themes within the policy document. To standardise the data values across policies, the number of initiatives targeting a subtheme within a policy was calculated as a weighted average[2] of the total number of initiatives distributed within that specific policy.

1.4.2 Primary data analysis

The survey data was analysed using MS Excel and SPSS. A detailed analysis plan was established outlining how the data will be analysed and presented.

The FGD audio recordings were transcribed into English, and the content was organised in MS Excel by emerging themes from the discussion. A similar process, as employed for the secondary data analysis, was followed for the analysis of the data obtained from the focus group discussions.

1.5 Structure of the report

The study findings are presented through the following chapters

Chapter 1: Introduction - This chapter includes the background and significance of the study. It also discusses the relevance and applications of the study for

[2] A weighted average is a calculation that assigns varying degrees of importance to the numbers in a particular data set. A weighted average can be more accurate than a simple average in which all numbers in a data set are assigned an identical weight.

policymakers and start-ups, providing data-driven insights and highlighting opportunities and challenges in the ecosystem.

Chapter 2: Policy Analysis - This chapter presents the findings from the analysis of the state's start-up policies, which encourage entrepreneurship, focusing on themes, sub-themes, target beneficiaries, and the scope of the policy study. It further presents a cross-analysis of the start-up policies across five states of India.

Chapter 3: Start-up landscape in Tamil Nadu - This chapter provides an overview of the start-up ecosystem in the state including the respondents' socio-economic profile, start-up, and founder profile.

Chapter 4: Support System - This chapter examines the access to and utilisation of support systems like incubators, networking, and mentorship, presenting findings on opportunities, challenges, and areas for improvement.

Chapter 5: Funding - This chapter analyses funding access and the challenges encountered by start-ups, incorporating insights from both survey respondents and focus group discussions.

Chapter 6: Government schemes and initiatives - This chapter presents findings regarding the awareness and access to various state government schemes and initiatives implemented through StartupTN.

Chapter 7: Market Access and Skilled Talent - This chapter assesses awareness, participation rates, and challenges faced by start-ups in navigating government procurement systems and applying for opportunities. This chapter also discusses issues related to the availability of skilled labour within the regions.

Chapter 8: Sustainability, Scalability, and Regulatory Reforms - This chapter is dedicated to the theme of sustainability and scalability in the start-up ecosystem. This chapter also focuses on the challenges and policy aspects related to regulations and compliance for start-ups.

Chapter 9: Voices from the Ground: Strengthening the Tamil Nadu Start-up Ecosystem – This chapter presents the suggestions to improve the state start-up ecosystem given by start-up founders who participated in the focus group discussion.

Chapter 10: Summary and Recommendations - The chapter presents the findings summary and the recommendations.

ANNEXURE 2 - EMERGING THEMES & TRENDS – TAMIL NADU START-UP ECOSYSTEM GROWTH

2.1 Themes Definition

Each theme and its key parameters of support defined by the Tamil Nadu start-up relevant policy initiatives have been explained as follows:

- **Market Access** – The Tamil Nadu Government would support competent start-ups through awards and recognitions. The initiative would provide grants, networking and collaboration opportunities as well as exposure to national and international delegations through networking events. Government procurement initiatives would include S2G Buy Day. GeM workshop, Demo-Day, Buyer-Seller Meet, National and International Events, and relaxation in rules for Government work orders. Market adoption, transition and penetration support would be provided to start-ups especially from emerging sectors.
- **Funding & Finance** –Funding support to start-ups that are aspiring to develop, expand or start new operations would be provided by the State Government. This support would be available in the form of financial assistance and tax benefits through several schemes aimed at supporting entrepreneurial efforts and creating employment opportunities. The funds would be disbursed in the form of grants, reimbursements, incentives, subsidies, interest free loan, collateral free loan, subsidised interest loan, term loan, investor funding, equity/convertible debentures, and subsidised process fees and so on.
- **Regulatory Reforms** – The regulatory initiatives reduce time and cost in regulatory processes to conserve seed capital and increase focus on the business and sustainability. The objective of the schemes focused on regulatory reforms would be to improve ease of doing business, ease of raising capital and reduce compliance burden through Business-friendly legislation/policies such as tax incentives, regulatory relaxations and approvals. The efficient implementation of policies would be ensured through governance mechanisms such as monitoring committee, task force, and dedicated monitoring portals and so on.
- **Infrastructure** - Infrastructure in the form of both physical and digital support system would be offered to start-ups. Digital support system would involve online hub with access to resources and information at the click of a button. StartupTN, AngelsTN and Single Window portals are a few significant structures of support provided by the government to start-ups. Physical infrastructure support would include physical connectivity measures to improve access, ready to move in built-up space, standard computer hardware facilities, access to software library, internet and business centre facilities which include incubators, accelerators, innovation centres, start-up centres, research parks, technology business incubators and so on. The theme would also include initiatives extended to enroll support from other allied sectors towards achieving the vision of the Policy.

- **Support Systems** - Mentoring and networking opportunities to address the challenges faced at different growth stages would be offered to support start-ups. Avenues for networking to encourage peer learning and interaction would be established. Access to these services would be provided virtually over StartupTN portal or through its infrastructure facilities specifically dedicated to start-ps. Initiatives to establish incubator/accelerator and support for commercialising research and IPR related needs would be addressed.

- **Skill Development** – Targeted training programmes would contribute to honing the business requisite skills among current and aspiring entrepreneurs. Sector specific training initiatives to build work force skills for emerging sectors would be launched. StartupTN would include specialised training and workshops as a component in few of the start-up exclusive schemes as deemed relevant. Enablers of these programmes would include online portals, business centre facilities, and educational institutions and so on.

- **Equitable Growth** – One of the main objectives of the state government would be to promote diversification by encouraging start-ups from under-represented population and geography. The initiatives would strive to promote inclusivity by encouraging start-ups from non-metro locations to improve regional economy and start-ups founded by minorities, SC/ST and women to remove biases. Initiatives to support training and employment of differently abled would also be addressed by this theme.

- **Sustainability** – Tamil Nadu Government would launch initiatives to encourage green industries focusing on renewable energy sector. Initiatives to adopt recycle, reduce and reuse wastewater would be launched. Further, organizations would be incentivized to follow sustainable practices. Safe labour laws for women and work environment free of hazardous conditions would be established. Safe and ethical handling of sensitive public data pertaining to the citizens would be promoted through targeted initiatives.

- **Ideation** - This phase of a start-up focuses on identifying a problem or a need in the target market. The challenge is identified and explored to assess if it is significant enough to warrant a solution. Founders, beyond defining their business idea, also work on market differentiation, and in creating a business plan to execute their vision. They also conduct thorough market research to understand the views of the potential customers and define the pain points. Funding at this stage primarily is from personal savings, friends, family, or angel investors. This stage is also ideal for laying down the legal framework for a start-up.

- **Validation** - The focus of a start-up in this phase is on validating the business model. This involves making critical decisions about the methodology the start-up will follow. Developing prototypes and running small experiments are key activities at this stage. The goal is to validate the initial hypothesis, iterating until the right solution is arrived at. Early funding often comes from bootstrapping, public aid, business angels, early-stage venture capitalists or incubators.

- **Early Stage** - In this phase, the start-up idea is transformed into a product/service in the market and have a proven business model. A start-up will launch a Minimum Viable Product (MVP) in the market to test and gather feedback. Venture Capitals, accelerators, growth equity investors and crowd funding can provide the necessary support. Funding support is used for product development, market expansion and in achieving market penetration. Investors at this stage include venture capital firms and growth equity investors.
- **Scaling** - If there's strong market demand for product or service, there is an increase in customers and revenue. This phase often has the highest failure rate, so it's important to adapt the product to new market demands. Therefore, funding is critical, with Venture Capitals and Corporate Venture Capitals playing significant roles. Start-ups in this stage are focused on scaling rapidly and preparing for an exit strategy. Funding at this stage comes from larger venture capital firms, private equity firms, and sometimes strategic investors.

2.2 Emerging Themes & Trends – Tamil Nadu Start-up Ecosystem Growth

Sno	Name of the Policies	Market Access			Funding & Finance				Regulatory Framework			Institutional Collaboration			Skill		Support Systems					Infrastructure			Equitable growth				Sustainability		Total Number of Initiatives - Policy Wise
		Exposure	Procureme	Market opportunities	Capital fund	Rev Fund & Grants	Fund platforms &networks	Incentives & Subsidies	Governance	Compliance	Clearances& Approval	Academia	Corporate	Government	Programme	Enablers	Mentor	Networking	Incubator & Accelerator	R&D	IP	Physical	Digital	Sector	Geography	Minorities	Caste	Gender	Enviornmental	Ethics/safety	
1	Tamil Nadu Start-Up and Innovation Policy	4	5	8	12	5	6	14	9	5	4	12	2	1	13	6	21	8	22	15	6	12	16	23	13	2	5	8	4	0	261
2	Tamil Nadu Blockchain Policy	1	0	2	0	0	0	0	12	0	4	0	0	3	3	1	2	4	0	1	0	2	1	3	0	0	0	0	0	4	43
3	Tamil Nadu Electric Vehicle Policy	0	0	11	4	1	1	2	7	4	1	3	2	1	2	5	3	1	3	5	0	10	3	6	0	1	1	1	4	1	83
4	Tamil Nadu Information Communication Technology Policy	5	0	1	3	1	0	10	2	3	4	0	0	3	4	4	0	1	1	3	1	9	1	6	0	1	0	1	1	1	66
5	Tamil Nadu Industrial Policy	4	1	3	2	1	1	3	2	1	8	0	0	0	1	1	0	0	1	0	0	23	2	5	4	2	2	3	6	1	77
6	Tamil Nadu MSME Policy	13	3	2	5	1	4	30	11	1	4	0	1	2	4	4	1	3	0	3	2	20	1	4	3	2	2	5	5	0	136
7	Tamil Nadu R&D Policy	1	2	2	2	4	0	0	2	0	0	3	1	5	1	1	3	3	3	5	1	9	1	7	3	0	0	0	0	0	59
8	Tamil Nadu State New Policy for Women	1	1	0	2	0	2	2	1	0	1	0	0	2	14	4	3	2	1	1	2	6	0	0	1	2	1	6	0	3	58
9	Tamil Nadu Electronics Hardware Manufacturing Policy	0	1	0	4	2	1	18	2	0	5	3	0	0	2	3	3	0	0	4	1	11	1	4	0	0	0	2	2	2	71
10	Tamil Nadu Aerospace & Defence Industrial Policy	4	1	1	7	3	0	6	6	1	2	1	0	1	1	2	0	1	2	1	1	5	1	1	0	1	1	1	0	1	52
11	Tamil Nadu Safe & Ethical Artificial Intelligence Policy	0	2	0	0	1	0	0	4	2	5	3	0	2	2	2	4	1	0	5	1	3	2	2	2	2	2	2	0	0	49
	Total Number of Initiatives - Policy Wise																														955

Source: CREST, IITM

Table A2.1: Analysis of policies based on number of thematic initiatives

Themes	Sub Themes	Name of the Policies											Total Number of Initiatives - Theme wise
		Tamil Nadu Start-Up and Innovation Policy	Tamil Nadu Blockchain Policy	Tamil Nadu Electric Vehicle Policy	Tamil Nadu Information Communication Technology Policy	Tamil Nadu Industrial Policy	Tamil Nadu MSME Policy	Tamil Nadu R&D Policy	Tamil Nadu State New Policy for Women	Tamil Nadu Electronics Hardware Manufacturing Policy	Tamil Nadu Aerospace & Defence Industrial Policy	Tamil Nadu Safe & Ethical Artificial Intelligence Policy	
Market Access	Exposure	4	1	0	5	4	13	1	1	0	4	0	33
	Procureme	5	0	0	0	1	3	2	1	1	1	2	16
	Market opportunities	8	2	11	1	3	2	2	0	0	1	0	30
Funding & Finance	Capital fund	12	0	4	3	2	5	2	2	4	7	0	41
	Rev Fund & Grants	5	0	1	1	1	1	4	0	2	3	1	19
	Fund platforms &networks	6	0	1	0	1	4	0	2	1	0	0	15
	Incentives & Subsidies	14	0	2	10	3	30	0	2	18	6	0	85
Regulatory Framework	Governance	9	12	7	2	2	11	2	1	2	6	4	58
	Compliance	5	0	4	3	1	1	0	0	0	1	2	17
	Clearances& Approval	4	4	1	4	8	4	0	1	5	2	5	38
Institutional Collaboration	Academia	12	0	3	0	0	0	3	0	3	1	3	25
	Corporate	2	0	2	0	0	1	1	0	0	0	0	6
	Government	1	3	1	3	0	2	5	2	0	1	2	20
Skill	Programme	13	3	2	4	1	4	1	14	2	1	2	47
	Enablers	6	1	5	4	1	4	1	4	3	2	2	33
Support Systems	Mentor	21	2	3	0	0	1	3	3	3	0	4	40
	Networking	8	4	1	1	0	3	3	2	0	1	1	24
	Incubator & Accelerator	22	0	3	1	1	0	3	1	0	2	0	33
	R&D	15	1	5	3	0	3	5	1	4	1	5	43
	IP	6	0	0	1	0	2	1	2	1	1	1	15
Infrastructure	Physical	12	2	10	9	23	20	9	6	11	5	3	110
	Digital	16	1	3	1	2	1	1	0	1	1	2	29
	Sector	23	3	6	6	5	4	7	0	4	1	2	61
Equitable growth	Geography	13	0	0	0	4	3	3	1	0	0	2	26
	Minorities	2	0	1	1	2	2	0	2	0	1	2	13
	Caste	5	0	1	0	2	2	0	1	0	1	2	14
	Gender	8	0	1	1	3	5	0	6	2	1	2	29
Sustainability	Enviornmental	4	0	4	1	6	5	0	0	2	0	0	22
	Ethics/safety	0	4	1	1	1	0	0	3	2	1	0	13
	Total Number of Initiatives - Theme Wise												955

Source: CREST, IITM

Table A2.2: Analysis of subthemes based on number of thematic initiatives

Main Themes	Tamil Nadu State New Policy for Women	Tamil Nadu Startup and Innovation Policy	Tamil Nadu Electric Vehicle Policy	Tamil Nadu R&D Policy	Tamil Nadu Aerospace & Defence Industrial Policy	Tamil Nadu Industrial Policy	Tamil Nadu MSME Policy	Tamil Nadu Blockchain Policy	Tamil Nadu Electronics Hardware Manufacturing Policy	Tamil Nadu Safe & Ethical Artificial Intelligence Policy	Tamil Nadu Information Communication Technology Policy
Market Access	3	23	12	7	8	10	22	3	2	4	6
Funding & Finance	5	27	6	7	11	5	20	0	12	1	6
Regulatory Reforms	2	18	14	1	7	10	12	11	5	10	10
Institutional Collaboration	3	29	16	19	3	0	9	5	4	7	5
Skill Development	21	23	12	3	4	3	10	5	6	5	8
Support Systems	7	45	7	11	4	1	6	5	4	7	3
Infrastructure	2	35	10	7	3	12	9	3	7	5	7
Equitable Growth	12	32	5	3	5	14	15	0	2	10	2
Sustainability	8	9	13	0	5	18	11	10	10	9	7

Source: CREST, IITM

Table A2.3: Analysis of Policies using weighted average method (Main themes)

Name of the Policies	Themes																												
	Market Access			Funding & Finance				Regulatory Reforms			Institutional Collaboration			Skill Development		Support Systems					Infrastructure			Equitable Growth				Sustainability	
	Market Exposure	Market Procurement	Market opportunities	Capital fund	Revenue Fund & Grants	Funding Platforms & Networks	Incentives & Subsidies	Governance	Compliance	Clearances& Approval	Academia	Corporate	Government	Programme	Enablers	Mentor	Networking	Incubator & Accelerator	R&D	IP	Physical	Digital	Sectoral	Geography	Differently Abled	Minotities	Gender	Enviornmental	Ethics & Safety
Tamil Nadu State New Policy for Women	2	2	0	3	0	3	3	2	0	2	0	0	3	21	6	4	3	2	2	3	10	0	9	2	3	2	9	0	4
Tamil Nadu Start-Up and Innovation Policy	2	2	3	5	2	2	5	3	2	2	5	1	1	5	1	8	3	8	6	2	5	6	9	5	1	2	3	1	0
Tamil Nadu Electric Vehicle Policy	0	0	14	5	1	1	2	8	5	1	4	2	1	2	6	4	1	4	6	0	13	4	7	0	1	1	1	5	1
Tamil Nadu R&D Policy	1	3	3	3	8	0	0	3	0	0	5	2	9	2	2	5	5	5	9	2	15	2	11	5	0	0	0	0	0
Tamil Nadu Aerospace & Defence Industrial Policy	6	2	2	12	5	0	10	10	2	3	2	0	2	2	3	0	2	3	2	2	10	2	10	0	2	2	2	0	2
Tamil Nadu Industrial Policy	6	1	3	3	1	1	3	3	1	11	0	0	0	1	1	0	0	1	0	0	33	3	7	6	2	2	3	7	1
Tamil Nadu MSME Policy	10	2	1	3	1	3	23	7	1	3	0	1	1	3	3	1	2	0	2	2	14	1	4	2	1	1	4	4	0
Tamil Nadu Blockchain Policy	2	0	5	0	0	0	0	29	0	9	0	0	7	7	2	5	9	0	2	0	5	2	7	0	0	0	0	0	9
Tamil Nadu Electronics Hardware Manufacturing Policy	0	2	0	5	3	2	24	3	0	7	4	0	0	3	4	4	0	0	5	1	15	1	8	0	0	0	3	3	3
Tamil Nadu Safe & Ethical Artificial Intelligence Policy	0	4	0	0	2	0	0	8	4	10	6	0	4	4	4	6	2	0	8	2	6	4	6	4	4	4	4	0	8
Tamil Nadu Information Communication Technology Policy	7	0	2	5	2	0	14	3	5	6	0	0	5	6	6	0	2	2	5	1	13	1	9	0	2	0	2	1	1

Source: CREST, IITM

Table A2.4: Analysis of policies using weighted average method (Sub themes)

Themes	Name of the Policies	Tamil Nadu State New Policy for Women	Tamil Nadu Startup and Innovation Policy	Tamil Nadu Electric Vehicle Policy	Tamil Nadu R&D Policy	Tamil Nadu Aerospace & Defence Industrial Policy	Tamil Nadu Industrial Policy	Tamil Nadu MSME Policy	Tamil Nadu Blockchain Policy	Tamil Nadu Electronics Hardware Manufacturing Policy	Tamil Nadu Safe & Ethical Artificial Intelligence Policy	Tamil Nadu Information Communication Technology Policy
Market Access	Market Exposure	3	12	0	3	12	12	40	3	0	0	15
	Market Procurement	6	32	0	12	6	6	20	0	6	12	0
	Market opportunities	0	27	37	6	4	10	6	6	0	0	4
Funding & Finance	Capital Fund	5	29	10	5	17	5	12	0	10	0	7
	Revenue Fund & Grants	0	27	5	21	17	5	5	0	10	5	5
	Fund Platforms & Networks	13	40	7	0	0	7	26	0	7	0	0
	Incentives & Subsidies	2	16	2	0	8	4	35	0	21	0	12
Regulatory Reforms	Governance	2	15	12	5	10	3	19	21	3	7	3
	Compliance	0	29	24	0	6	6	6	0	0	12	17
	Clearances& Approval	3	11	3	0	5	21	11	11	12	12	11
Institutional Collaboration	Academia	0	48	12	12	4	0	0	0	12	12	0
	Corporate	0	33	33	17	0	0	17	0	0	0	0
	Government	10	5	5	25	5	0	10	15	0	10	15
Skill Development	Programme	30	28	9	2	2	2	9	6	4	4	4
	Enablers	12	18	16	3	6	3	12	3	9	6	12
Support Systems	Mentor	8	51	8	8	0	0	3	4	8	10	0
	Networking	8	33	4	13	4	0	13	17	0	4	4
	Incubator & Accelerator	3	66	9	9	7	3	0	0	0	0	3
	R&D	3	35	15	15	3	0	3	3	5	15	3
	IP	13	39	0	7	7	0	13	0	7	7	7
Infrastructure	Physical	5	11	9	8	5	21	18	2	10	3	8
	Digital	0	56	10	3	3	8	3	3	3	8	3
	Sectoral	0	38	10	11	1	8	7	5	7	3	10
Equitable Growth	Geography	3	50	0	12	0	15	12	0	0	8	0
	Differently Abled	15	15	9	0	8	15	15	0	0	15	8
	Minorities	7	37	7	0	7	14	14	0	0	14	0
	Gender	21	28	3	0	3	11	17	0	7	7	3
Sustainability	Enviornmental	0	18	18	0	0	27	23	0	9	0	5
	Ethics & Safety	15	0	8	0	9	8	0	21	11	19	9

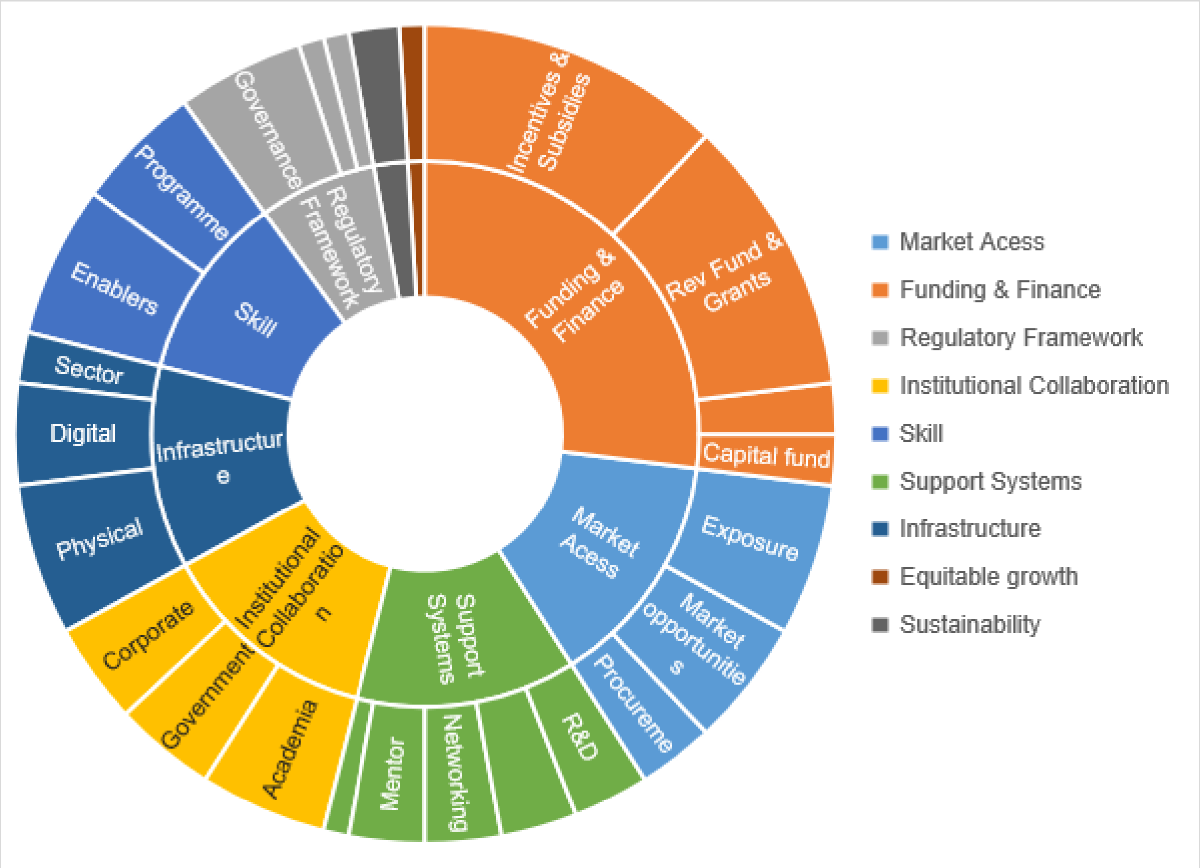
Source: CREST, IITM

Table A2.5: Analysis of subthemes using weighted average

2.2 Analysis – In depth – Tamil Nadu Start-up Ecosystem Growth

a. **Draft Tamil Nadu Deep Tech Startup Policy

"To position Tamil Nadu as India's premier deep tech hub—fueling innovation, industrial growth, and MSME empowerment— while establishing a cutting-edge deep tech and emerging tech ecosystem that accelerates our journey toward a $1 trillion economy."



Source: CREST, IITM

Figure A2.6: Distribution of sub-themes within Tamil Nadu Deep Tech Startup Policy

Focus Areas: Incentives & Subsidies, Revenue Funds & Grants, Market Exposure

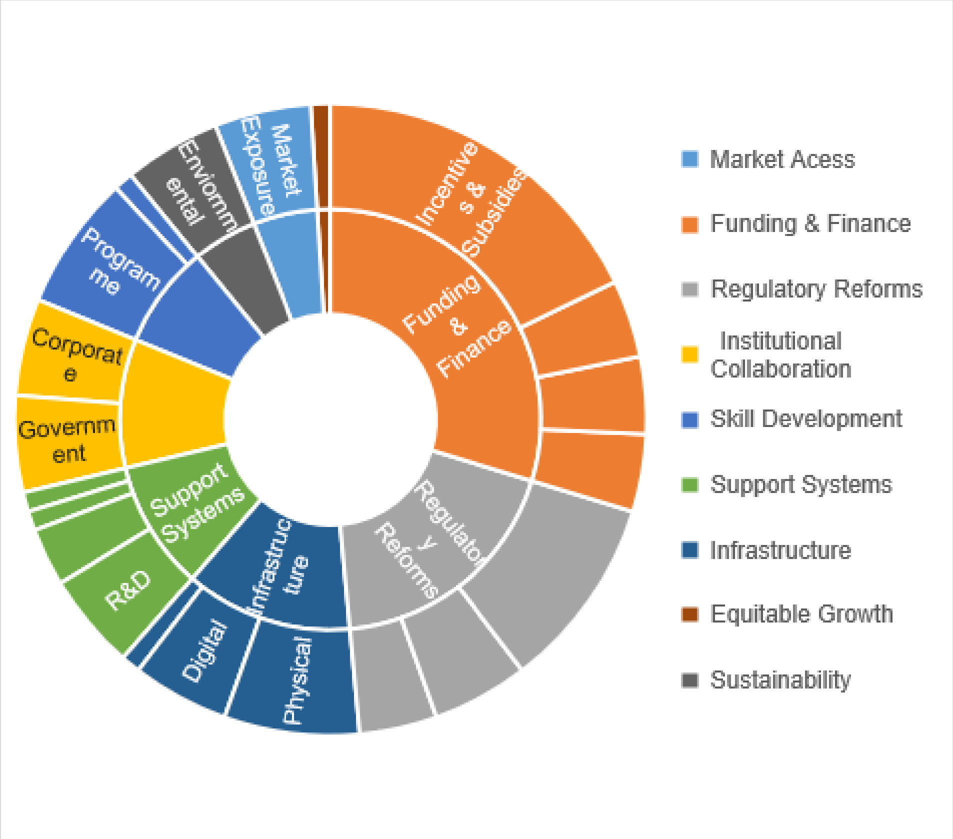
Forms of Support: Incentives and subsidies support would include Reimbursement of approved expenses for early-stage lab research and experimentation, lab validation, sandbox-based pilot testing and tax support to the early industrial adoption of deep tech products from start-ups. Rental subsidies are offered for deep tech start-ups on office or lab space within government-supported deep tech parks or incubator facilities hosting workshops, hackathons, and industry-academia meets. Deep Tech Fund-of-Funds program would facilitate investment in venture capital funds that specialize in deep tech, to indirectly increase the pool of capital available to local start-ups. Grants to support product deployment, premarket product validation and IP commercialization would be provided. Qualified researchers or PhD graduates who start a deep tech company would receive a personal research grant to continue R&D while building the venture. Talent

development grants, annual skilling grant, international exchange grants would support deep tech skill development within start-ups and educational institutions including specialized training programs, certifications, or workshops for its employees and students. To accelerate the adoption of deep tech solutions, annual grand challenges with grant-based support would be launched to identify high-impact innovations with strong commercialization potential.

international trade missions and delegations such as "TN Deep Tech Summit" would provide opportunities to deep tech start-ups to showcase technologies at prominent global tech expos, investor forums, and industry conferences. Efforts would be targeted to bridge Tamil Nadu's deep tech start-ups with leading research institutions, corporate R&D centres, and venture investors. Support would be provided to delegations to attend renowned tech conferences abroad to expand global reach and attract customers and investors.

b. **Draft Tamil Nadu Space Industrial Policy

"*Use space as a driver of technology development and derived benefits in allied areas; and create an ecosystem for effective implementation of space applications among all stakeholders*"



Source: CREST, IITM

Figure A2.7: Distribution of sub-themes within Tamil Nadu Space Industrial Policy

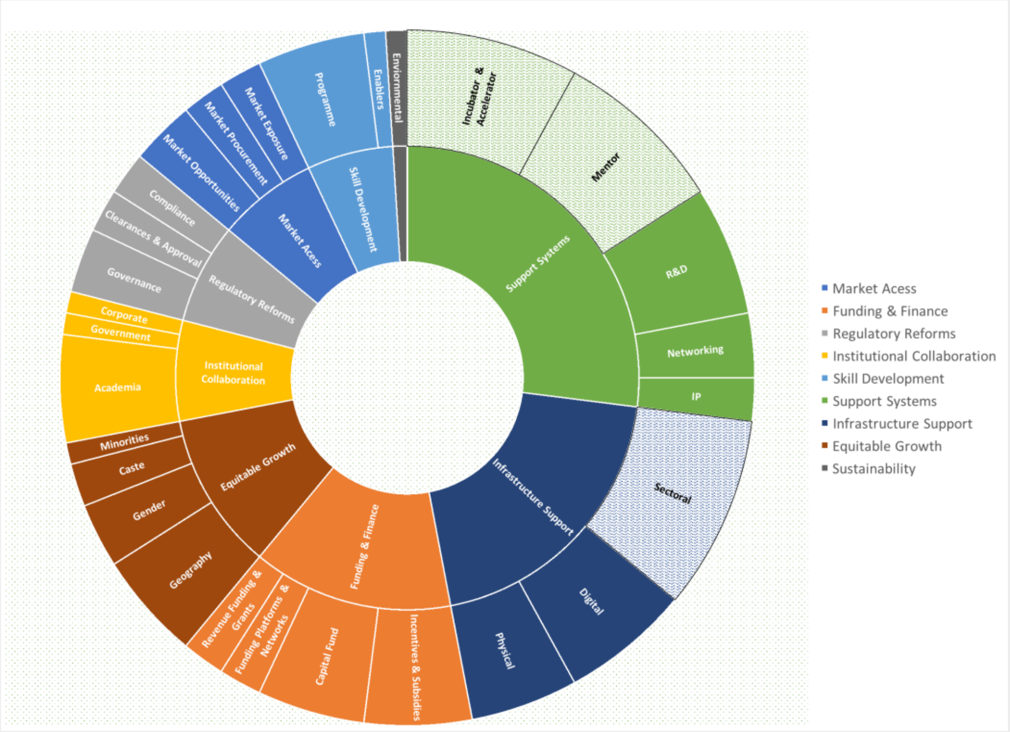
Focus Areas: Incentives and subsidies, Governance, Physical infrastructure

Forms of Support: Funding and Finance specifically Incentives and Subsidies aspect would carry the highest weightage, since it accelerates innovation, attracts private investment, and establishes a competitive edge in the global market. Reducing financial burdens would make it easier for start-ups and companies to invest in space technology. Subsidies would help build infrastructure like satellite testing centers, manufacturing hubs, and R&D labs, to develop local ecosystems. Also offering capital support and funding would ensure thousands of skilled jobs emerge in aerospace engineering, satellite manufacturing, and allied industries. Supporting businesses financially would lead to advancements in satellite-based internet, in-orbit servicing, and future technologies like space mining thus would Foster Innovation and Research.

Strong Governance would refer to the regulations and frameworks that guide governments, private companies, and international organizations to operate in space while ensuring transparency, efficiency, and sustainable development. To foster innovation and private sector participation, infrastructure support would be provided which includes Common Facility Centers, Satellite Testing Facilities, Warehousing and Assembly Units, Centre of Excellence for Emerging Technologies, Reliability Certification Process and so on.

c. Tamil Nadu Startup & Innovation Policy

"To establish a democratized ecosystem that fosters innovation and entrepreneurship, transforming the State into a land of opportunities for the development of both technologically groundbreaking and socially impactful enterprises by individuals from all walks of life."



Source: CREST, IITM

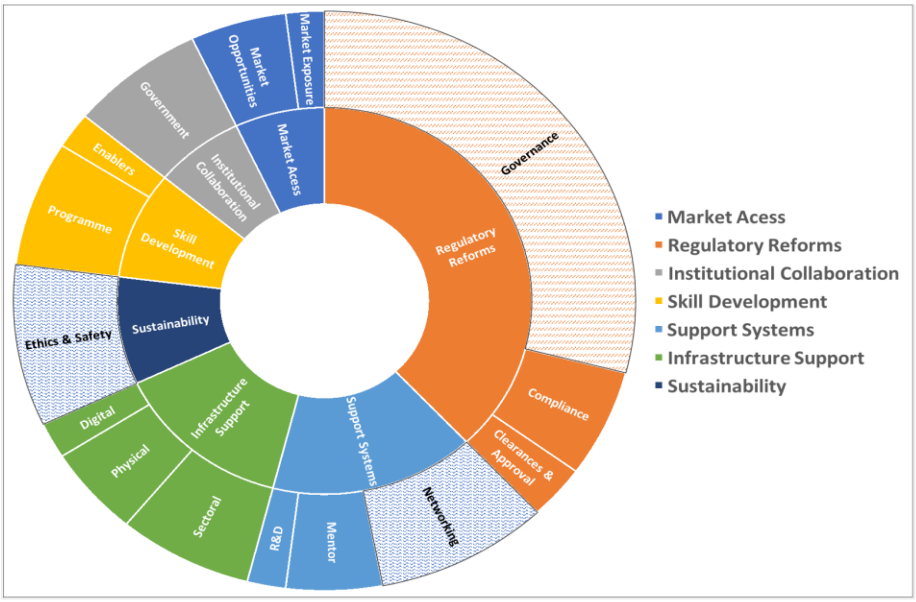
Figure A2.8: Distribution of sub-themes within Tamil Nadu Startup & Innovation Policy

Focus Areas: Sectoral Infrastructure, Incubators & Accelerators, Mentorship support
Forms of Support: Sectoral Infrastructure support would include Sectoral Forum initiatives to provide niche platforms to cater to sector specific knowledge share and other critical resources support. Sector specific infrastructure support would also be provided in the form of Plug & Play facilities, Open Network for Digital Commerce (ONDC), Incubator & Accelerator facilities, Prototyping facilities and sector specific Centers of Innovation. Funding support to sectors would be through TANSEED, TNESSF, Tamil Nadu Startup and Innovation Mission Fund (TANFUND) and conventional financial institutions. Marketing portal and Startup to Corporate procurement programmes would further engage with sector specific initiatives. Award schemes such as Annal Ambedkar Business Champion Scheme would specifically target manufacturing and service sectors.

As part of start-up support systems, incubation support would be engaged through dedicated facilities such as Institution Startup Circle (ISC) targeting higher educational institutions and polytechnics, Corporate Incubators, Scaleup and Sandbox incubators, Tamil Nadu Incubation Maturity Model (TNIMM) and so on. Targeted incubation facilities are catered through Tech Transfer Offices (TTO), Women Scaleup Centers and Sectoral Forums. Women Scaleup Centers also provide mentorship programmes facilitated by successful women entrepreneurs. Mentorship services would be offered through various dedicated platforms including Startup helpline and MentorTN. Few funding programmes such as American Tamil Entrepreneurship Association (ATEA), Startup Smartcard, Tamil Nadu Startup Seed Grant Fund (TANSEED) and Tamil Nadu Emerging Sector Seed Fund (TNESSF) would also provide mentor support. The services would also be part of targeted programmes such as Entrepreneur in Residence (EIR), Next Leap initiative, Startup to Corporate Procurement, Sectoral Forums, BrandLabs and Social Justice Lab. Further, challenge events such as Annal Ambedkar Business Championship Scheme and Innovation Sprints provide dedicated mentorship support to handhold the participants.

d. Tamil Nadu Blockchain Policy

"For the blockchain initiative to be successful it is essential to have a set of guidelines and standards that need to be followed for building blockchain applications for e governance and for other applications built using the state-wide blockchain backbone"



Source: CREST, IITM

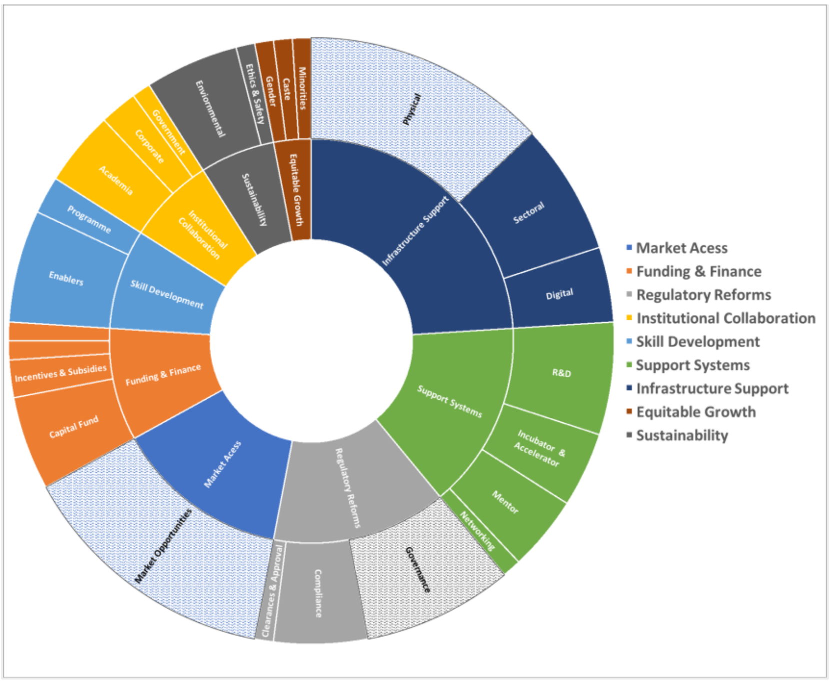
Figure A2.9: Distribution of sub-themes within Tamil Nadu Block Chain Policy

Focus Areas: Governance, Networking, Ethics & Safety

Forms of Support: The Regulatory Reforms and specifically the Governance aspect carries the highest weightage, nearly 50 percent, since Blockchain as a network technology promises interoperability, transparency, and immutability providing numerous benefits to the state government. It would be harnessed for providing accountable and efficient governance to citizens. For effective implementation of the policy dedicated committees that would drive the implementation and adoption of blockchain in the State would be established. Through various governance mechanisms, legal clearances and approvals the committees would ensure compliance, safety, security and privacy of blockchain applications. Policy initiatives would provide networking opportunities to entrepreneurs, researchers, developers and professionals to benefit from Blockchain Technology through community development.

e. Tamil Nadu Electric Vehicle Policy

"Interventions shall enhance and strengthen the EV manufacturing value chains, improve EV adoption across vehicular segments, increase electric public mobility solutions, improve green electricity value chains, promote rapid EV infrastructure development, and leverage the synergies of the existing R&D centres in the State"



Source: CREST, IITM

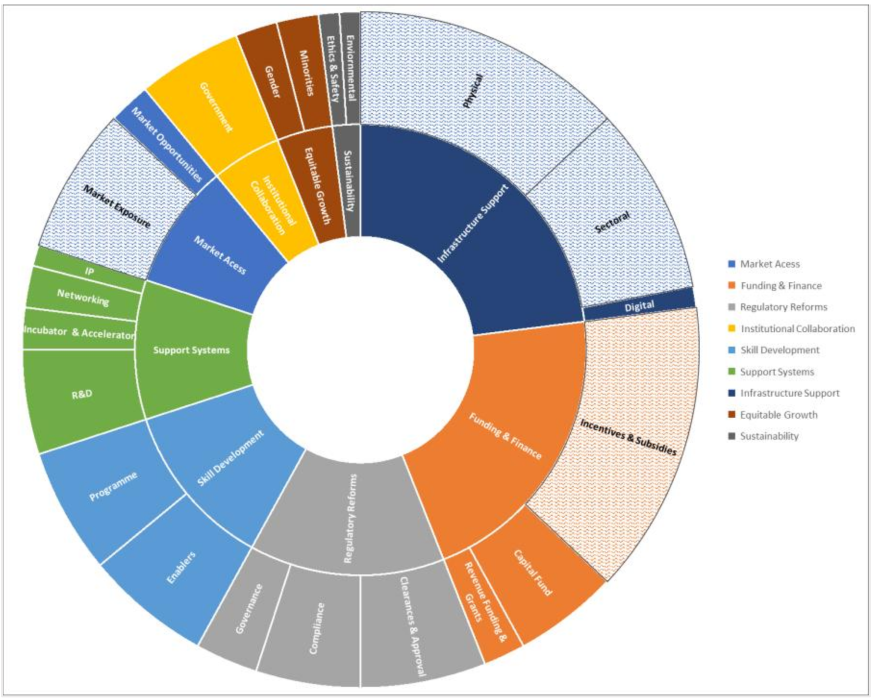
Figure A2.10: Distribution of sub-themes within Tamil Nadu Electric Vehicle Policy

Focus Areas: Market Adoption, Physical Infrastructure, Governance

Forms of Support: Electric Vehicle (EV) industry being in the nascent stage, the policy focus would be on augmentation of demand as well as the supply side of the industry. This strategy would reflect in the focus of the initiatives towards Market Opportunities which would include providing initial impetus for early adopters of Electric Vehicles through special demand incentives. The initiatives would include enabling charging infrastructure with favourable power tariffs through public/ private measures, prioritising electrification of commercial vehicular fleets and promoting EVs in manufacturing hubs. Initiatives to support transition of the automotive manufacturing vendors in the state from ICE (Internal Combustion Engine) vehicles to EV manufacturing would also be ensured. To augment the supply side, focus would be on building robust infrastructure & industrial ecosystem to attract manufacturing units. Thus, both supply and demand side initiatives invest heavily on infrastructure including in with MSME sector for EV components manufacturing. The implementation of this policy would be based on interventions by different departments of the Government. To facilitate these interventions and ensure a concerted effort to monitor the implementation of the policy, various government departments such as Industries, Investment Promotion, and Commerce Department, MSME, TamilNadu Generation and Distribution Corporation (TANGEDCO) and Transport engage with Sanctioning & Implementing Agency and EV Steering Committee. EV Cell provides the facilitation, coordination support to all the stakeholders engaged in EV adoption initiatives.

f. Tamil Nadu Information Communication Technology Policy

"An economic and institutional regime that incentivises knowledge creation and entrepreneurship"



Source: CREST, IITM

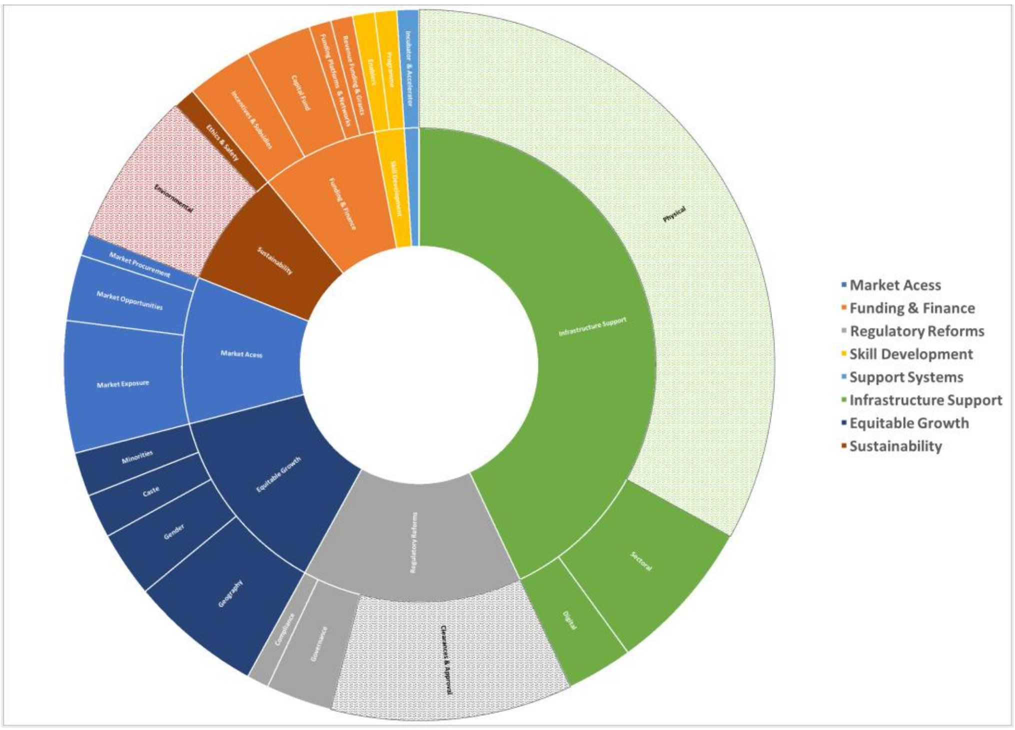
Figure A2.11: Distribution of sub-themes within Tamil Nadu Information communication Technology Policy

Focus Areas: Incentives and Subsidies, Physical Infrastructure, Sector Infrastructure, Market Exposure

Forms of Support: To promote employment throughout the State and for the benefit of the rural students, the government would extend special structured package of incentives and subsidies to the start-ups which are ready to invest in Tier II and Tier III cities as well as in rural locations. They include standard fiscal incentives, administrative incentives, capital subsidy, patent filing, market assistance and so on. Infrastructure facilities required for SMAC (Social Mobile Analytics & Cloud) based ecosystem and Data centres would be provided by the government. Rural (Business Processing Offices) BPOs and Common Service Centres would also be setup. Priority infrastructure projects would be initiated across sectors. To make development more inclusive, Tier II cities would be promoted by Electronics Corporation of Tamil Nadu (ELCOT) as IT investment destinations by establishing specialized economic zones ELCOSEZ (IT Specific Special economic Zones). Beyond incentives and infrastructure support, market exposure assistance would be provided through specialized exhibitions, stalls and seminars in state sponsored events. Tie ups with reputed Business analyst firms would be facilitated to evaluate the strengths of MSMEs, to cater to international markets.

g. Tamil Nadu Industrial Policy

"*Tamil Nadu, being an industrial powerhouse of the country has built and continues to develop a robust industry with buoyant and resilient infrastructure.*"



Source: CREST, IITM

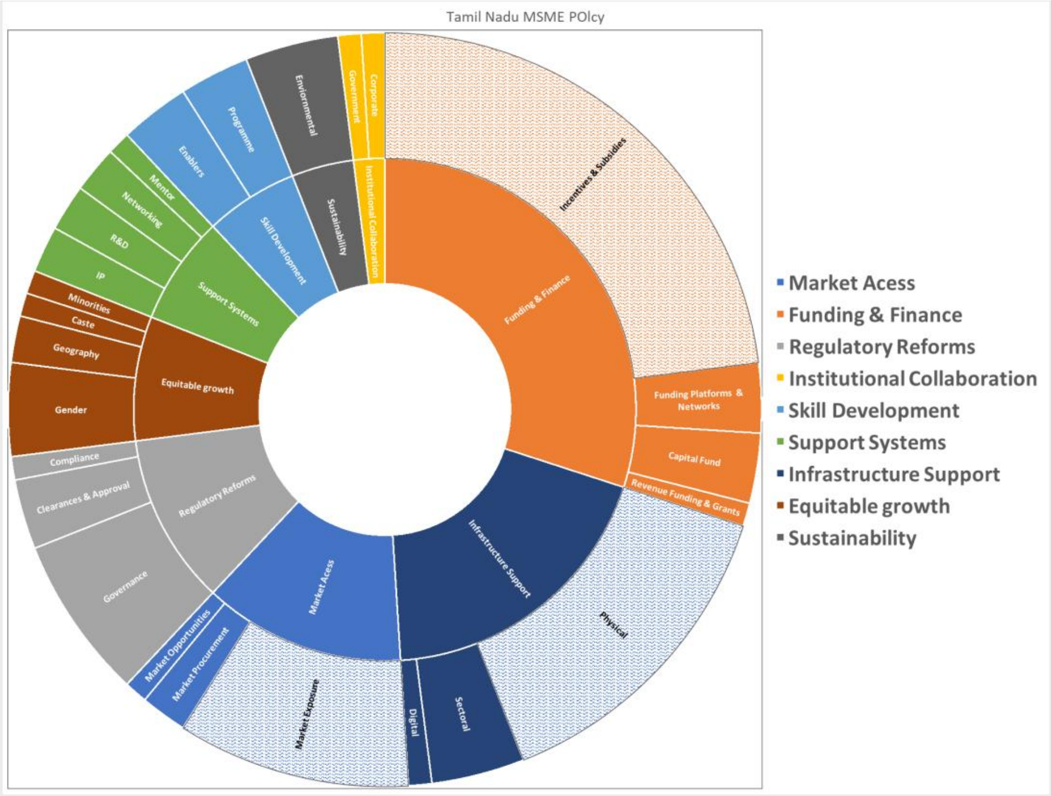
Figure A2.12: Distribution of sub-themes within Tamil Nadu Industrial Policy

Focus Areas: Physical Infrastructure, Clearances and Approvals, Environmental

Forms of Support: The policy focus is nearly 50 percent towards physical infrastructure initiatives and State's approach to augment industrial infrastructure would be through the development of industrial parks, transport and logistics, energy and utilities, and communication infrastructure. The Government would be developing industry-specific parks and Plug & Play facilities to help promote cluster-based development. The State would be developing industrial corridors with modern road and rail connectivity, specific investment regions, and other industrial and social infrastructure like townships, schools, hospitals, etc. The state would also undertake the implementation of BharatNet through Tamil Nadu Fibernet Corporation, which connects Village Panchayats through Optical Fibre that would have connectivity of 1 GBPS. Beyond physical infrastructure, Tamil Nadu Government would initiate new power projects using both non-renewable & renewable sources and would proactively plan for water augmentation through sustainable initiatives. Industrial projects undertaking green initiatives for recycling wastewater for industrial use and for sustainable energy usage, would be subsidized on the cost of setting up such environmental protection infrastructure. As part of regulatory reforms, Single window portal, Investor facilitation desk and Biz buddy platforms would offer host of services from various government departments. These departments work within defined timelines for granting approvals/clearances at various stages of the business lifecycle thus improving the ease of doing business.

h. Tamil Nadu MSME Policy

"*MSMEs would be given specific support, exemptions, simplified procedures, etc. to ensure a level playing field under the schemes, laws and procedures applicable to them*"



Source: CREST, IITM

Figure A2.13: Distribution of sub-themes within Tamil Nadu MSME Policy

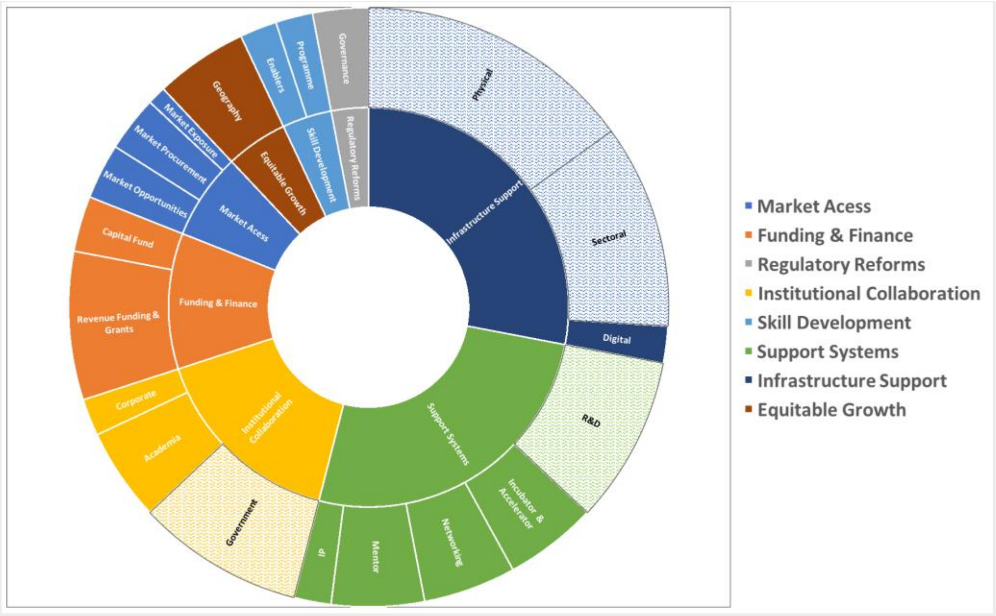
Focus Areas: Incentives & Subsidies, Physical Infrastructure, Market Exposure

Forms of Support: Tamil Nadu MSME policy would focus nearly 25 percent of the initiatives towards Incentives & Subsidies. The incentives target specific outcomes such as Schemes for technology development, Schemes for enhancing competitiveness, marketing support, Schemes for skill development / upgradation, Schemes for infrastructure support, credit linked subsidy, interest subsidy schemes for technology upgradation, Credit Guarantee Fund Trust for Micro & Small Enterprises (CGTMSE) scheme, incentive support schemes, Schemes to promote cleaner & environment friendly technologies and so on. These schemes would be dedicated to target start-ups at different stages of business ranging from early-stage start-ups, new product or production process stage, assistance for raising money, seed capital for early stage, expansion & diversification, prototyping etc. Infrastructure augmentation initiatives through Tamil Nadu Small Industries Development Corporation Limited (TANSIDCO) and State Industries Promotion Corporation of Tamil Nadu (SIPCOT) would be planned. TANSIDCO would be the agency to co-ordinate for the provision of water, sewage facilities, uninterrupted power supply, and road connectivity to industrial estates located in the recognized industrial corridors. Focus of the infrastructure initiatives would be on

land identification, procurement, allotment to MSME industries to develop industrial estates, Plug & Play facilities, worker hostels and so on. Priority allotment provisions to minorities, women, differently abled and trans people would be made. The initiatives would aim to ease the land acquisition process for domestic and foreign investors in this segment. To assist in the Market Exposure both locally and globally, several initiatives would be launched. MSME-Trade and Investment Promotion Bureau (M-TIPB) would support public procurement through purchase preference, national and international trade fairs and exhibitions, vendor development programmes, to build capacities and abilities of the MSMEs to access the existing and emerging market opportunities.

i. Tamil Nadu R&D Policy

"There is a flow of creativity across all disciplines that enables innovation. A comprehensive and interdisciplinary approach is required to encourage R&D in the State"



Source: CREST, IITM

Figure A2.14: Distribution of sub-themes within Tamil Nadu R&D Policy

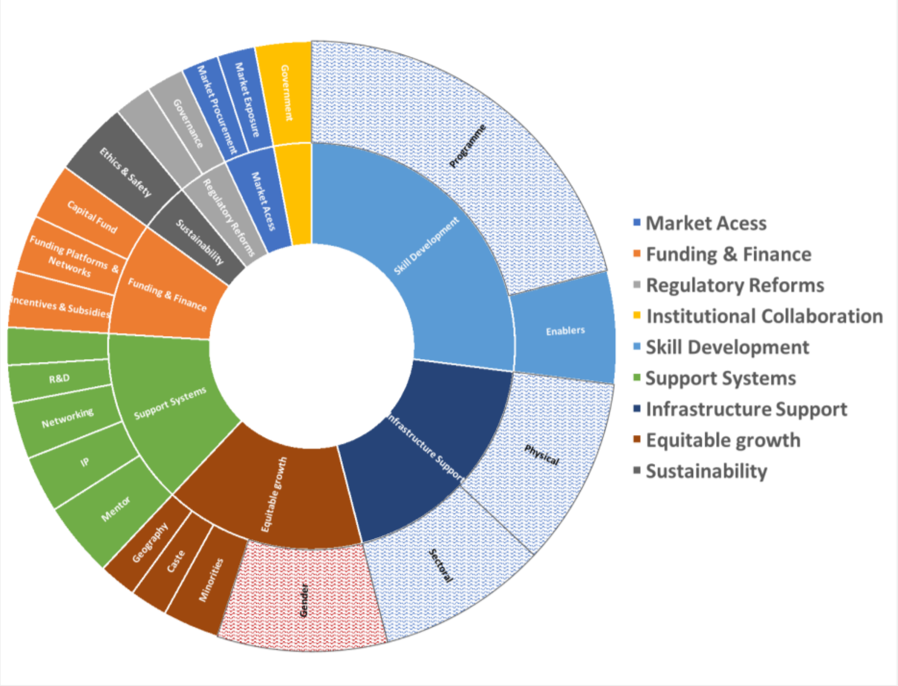
Focus Areas: Physical Infrastructure, Sectoral Infrastructure, Government Collaboration, R&D

Forms of Support: The government bodies such as Tamil Nadu Small Industries Development Corporation Limited (TANSIDCO), SIPCOT, Tamil Nadu Start-up and Innovation Mission (TANSIM), Tamilnadu Industrial Development Corporation Limited (TIDCO) and Guidance would establish infrastructures to collaborate and support R&D across various sectors, predominantly through Government institutions. Support structures include Innovation Clusters, Hi tech corridor, Research parks, Knowledge city, Industry 4.0 platform, Work Labs, Centers of Excellence (CoE), Regional Startup Hubs, Industrial innovation centers, ITNT hub and so on. Regional startup hubs would work with various sectoral policies for sector specific R&D in collaboration with Govt bodies and institutions. iTNT hub would solve complex challenges in different sectors, such as agriculture, health, or education, using emerging technologies like Artificial Intelligence

(AI), data analytics, and blockchain. CoEs would develop emerging technologies to support industries in the niche and sunrise sectors. The State would establish Work Labs as a special cell under Guidance to enable the synergy between industries and academia, to equip graduates with the required skills for innovation and industrial readiness in sunrise sectors.

j. Tamil Nadu State New Policy for Women

"A meaningful and gainful participation of women in economic activity is integral for achieving greater security and stability in the country."



Source: CREST, IITM

Figure A2.15: Distribution of sub-themes within Tamil Nadu State New Policy for Women

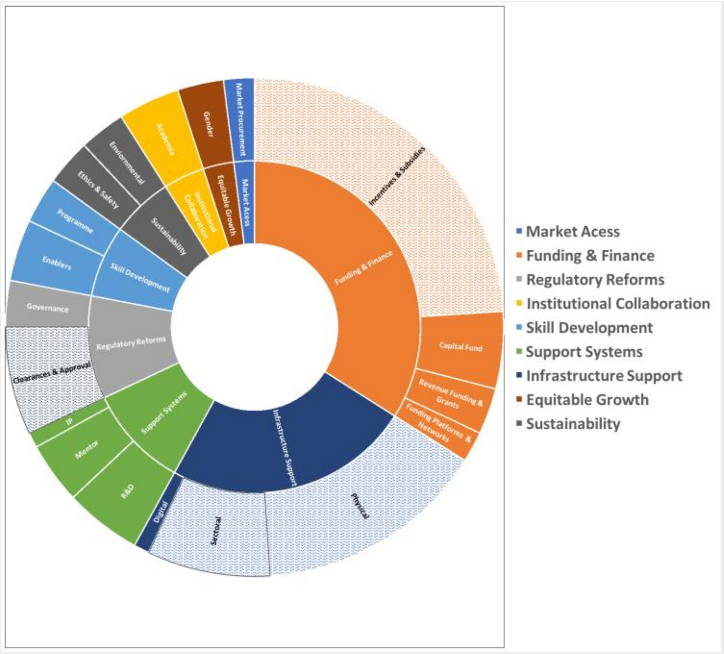
Focus Areas: Skill Development Programmes, Physical Infrastructure, Sectoral Infrastructure, Gender

Forms of Support: The policy would promote skill development programs tailored to the needs of women, including vocational training and entrepreneurship development. Dedicated training centers for women would be established across the state to provide accessible and quality training to enhance their skills and employability in emerging high growth sectors. Skill training for re-entry or lateral entry after career break would also be initiated. Digital infrastructure would also be improved to provide access to dedicated online resources and training programs for women. Initiatives to enhance digital literacy among women, would enable them to leverage technology for personal and professional growth. Women would be encouraged to pursue careers in Science, Technology, Engineering, and Mathematics (STEM) fields through scholarships and mentorship programs to contribute to the state talent pool. The policy would promote initiatives to support women entrepreneurs and professionals by providing affordable and accessible co-working spaces. These co-working spaces would offer a conducive and safe

environment for women to work, collaborate, and grow their businesses. Further initiatives would provide safe and affordable transportation options for women to enhance their mobility and participation in the workforce. Flexible work hours and provisions to ensure the safety and well-being of women working night shifts would be ensured across sectors.

k. Tamil Nadu Electronics Hardware Manufacturing Policy

> *"Foster a conducive environment for ESDM Start-ups, especially promoting the rapid growth of innovation-led technology enterprises involved in the design, development and manufacturing of technologically advanced solutions"*



Source: CREST, IITM

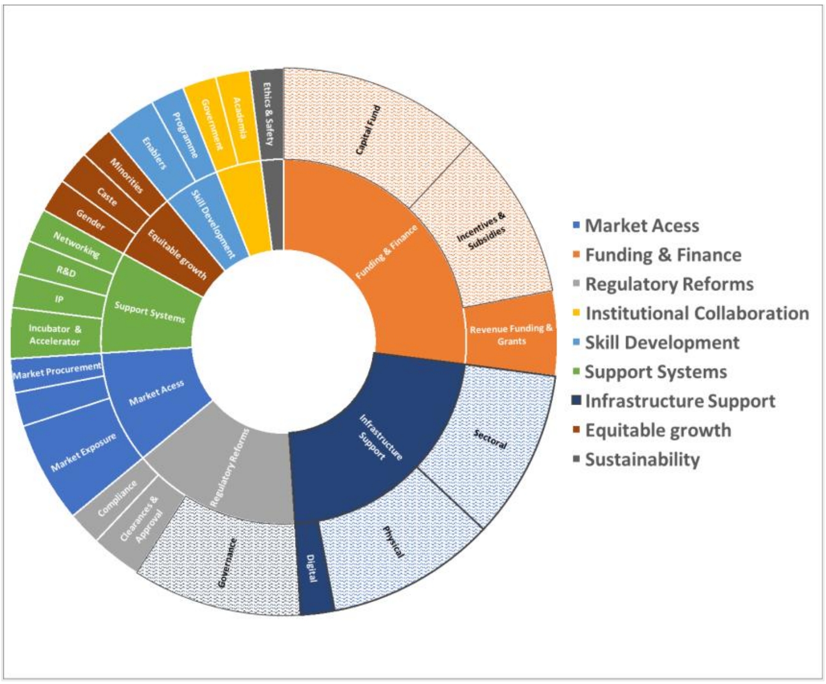
Figure A2.16: Distribution of sub-themes within Tamil Nadu Electronics Hardware Manufacturing Policy

Focus Areas: Incentives & Subsidies, Physical Infrastructure, Sectoral Infrastructure, Clearances & Approval

Forms of Support: Infrastructure support would be provided by establishing Electronics Manufacturing Clusters (EMCs), Industrial Parks and Plug & Play facilities through ELCOT, SIPCOT, SIDCO and other agencies. Further development of EMCs across the state would be supported through single window clearances to all project proposals by entrepreneurs. Development of Electronic repair parks with facilities for e waste management would be encouraged. Developers of Industrial Parks / SEZs / Industry clusters, etc. would be provided incentives and clearances for development of environment protection infrastructure. Common facility centres and electronic testing centres would be established for R&D support. Product development facilities such as Mega Electropreneur Centre (MEC) and Mini Electropreneur Centre (MiEC) would be setup by ELCOT in ELCOSEZs to scale up the footprint of innovation activities. Land lease cost subsidy, training subsidy, stamp duty and electricity tax exemptions would be provided to create a conducive business environment for electronics hardware manufacturing in Tamil Nadu.

I. Tamil Nadu Aerospace & Defence Industrial Policy

"The Indian Aerospace & Defence industry is rapidly progressing and evolving as a global player, fuelled by increasing defence spend and booming commercial aviation."



Source: CREST, IITM

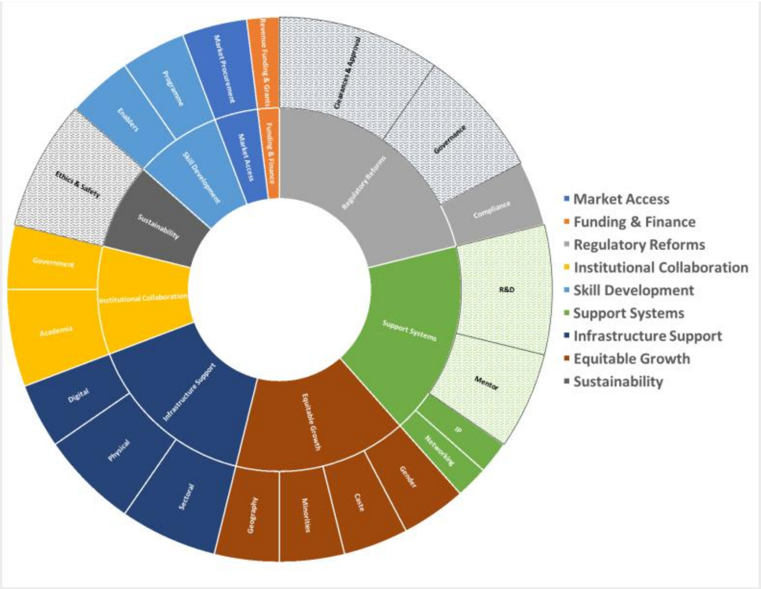
Figure A2.17: Distribution of sub-themes within Tamil Nadu Aerospace & Defence Industrial Policy

Focus Areas: Capital Fund, Physical Infrastructure, Sectoral Infrastructure, Governance, Incentives & Subsidies

Forms of Support: Capital fund would be the focus of Tamil Nadu Aerospace & Defence Industrial Policy due to the large investment requirements of this sector. Funding would be initiated through TNESSF, Equity financing, Industrial ecosystem fund, Research & Tech fund, Yaadhum OOrae programme and term loan by Tamil Nadu Industrial Investment Corporation Limited (TIIC). Beyond standard incentive package for MSMEs special incentives would be provided for start-ups through Innovations for Defence Excellence (IDEX) startups grant, TNESSF equity financing and Technology Transfer Office. Sectoral support through TIDCO and SIPCOT would be sought to implement Aerospace & Defence infrastructure projects along with employee housing. TIDCO would setup support infrastructure such as Center of excellence in emerging technologies in manufacturing, flight training schools, Drone range, common facility centers for manufacturing, testing & warehousing. Further, Worklab Cells under Guidance and FORT under SIPCOT would be established to bridge the gap between industry and academia. The implementation of the policy would be through Single window clearance mechanism and monitored by Inter departmental committee (IDC).

m. Tamil Nadu Safe & Ethical Artificial Intelligence Policy

> *"AI Systems can create new social paradigms, which if left un-regulated and unevaluated, can severely damage the social fabric and expose people lower in the bargaining hierarchy with a real threat of exploitation and unfair treatment"*



Source: CREST, IITM

Figure A2.18: Distribution of sub-themes within Tamil Nadu Safe & Ethical Artificial Intelligence Policy

Focus Areas: Clearance & Approval, R&D, Governance, Ethics & Safety, Mentor

Forms of Support: To harness the power of AI for the public good while keeping it safe and ethically compatible with human values, strong regulatory framework is imperative. Tamil Nadu Government would use the DEEP-MAX Scorecard for evaluating all AI Systems before public roll out. DEEP-MAX Scorecard is a transparent point-based rating system for AI Systems on the seven key parameters which include Diversity, Equity, Ethics, Privacy and Data Protection, Misuse Protection, Audit and Transparency, Digital Divide and Data Deficit (Cross Geography and Cross-Society applicability and performance of AI System). While procuring and deploying any AI based Solution/ System, the procuring entity would check if the proposed solution/ system conforms to the 7 parameters laid down in the DEEP-MAX Scorecard. Center of Excellence in Emerging Technologies (CEET) functioning under Tamil Nadu e-Governance Agency (TNeGA) would assist the procuring Entities/Departments in analyzing the AI Solution/System to ascertain whether they meet the DEEP-MAX Scorecard for AI Safety and Ethics. TNeGA would create the ACTS-Blockchain "Nambikai Inayam" and the departments would be encouraged to use it for safe and ethical use of AI. Government of Tamil Nadu or agencies acting on its behalf, would determine, and revise periodically, acceptability criteria for AI Systems based on DEEP-MAX Scores for their use cases and to reject/recall any application that does not meet the set criteria. Effective implementation of the guidelines shall be monitored by Safe & Ethical AI Monitoring committee. The Government would set up AI Expert Groups to identify application opportunities for AI and related solutions. Innovation is encouraged

through Open AI challenges, AI Research Centers in collaboration with leading industry players and encouraging innovation at the grass-roots level through AI Sand box.

2.3 Emerging Themes & Trends – Life Cycle of Start-ups

Sno	Name of the Policies	Ideation	Validation	Early Stage	Scaling	Total
1	Tamil Nadu Start-Up and Innovation Policy	2	7	11	6	**26**
2	Tamil Nadu Information Communication Technology Policy	0	0	1	0	**1**
3	Tamil Nadu Industrial Policy	1	2	1	1	**5**
4	Tamil Nadu MSME Policy	0	1	22	16	**39**
5	Tamil Nadu R&D Policy	2	1	3	0	**6**
6	Tamil Nadu Electronics Hardware Manufacturing Policy	2	5	4	0	**11**
7	Tamil Nadu Aerospace & Defence Industrial Policy	1	1	0	o	**2**
8	Tamil Nadu Safe & Ethical Artificial Intelligence Policy	1	1	1	0	**3**
	TOTAL	**9**	**18**	**43**	**23**	**93**

Source: CREST, IITM

Table A2.19: Analysis of policies For Life cycle of business stages

S. No	Name of the Policies	Ideation	Validation	Early Stage	Scaling
1	Tamil Nadu Start-Up and Innovation Policy	8%	27%	42%	23%
2	Tamil Nadu Information Communication Technology Policy	0	0	50%	50%
3	Tamil Nadu Industrial Policy	20%	40%	20%	20%
4	Tamil Nadu MSME Policy	1%	2%	56%	41%

S. No	Name of the Policies	Ideation	Validation	Early Stage	Scaling
5	Tamil Nadu R&D Policy	33%	17%	50%	0
6	Tamil Nadu Electronics Hardware Manufacturing Policy	18%	45%	37%	0
7	Tamil Nadu Aerospace & Defense Industrial Policy	50%	50%	0	0
9	Tamil Nadu Safe & Ethical Artificial Intelligence Policy	33%	33%	34%	0

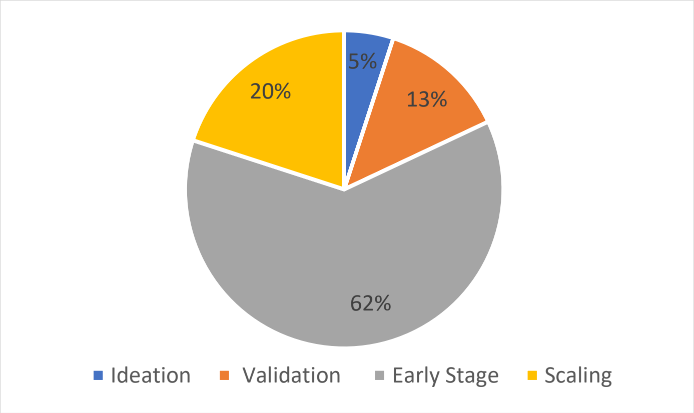
Source: CREST, IITM

Table A2.20: Analysis of policies using weighted average method

3.3 Analysis – In depth – Lifecycle of Start-up

a. **Draft Tamil Nadu Deep Tech Startup Policy

"Enable proof-of-concept testing for deep tech start-ups in government settings, with access to infrastructure, facilitation, and data."



Source: CREST, IITM

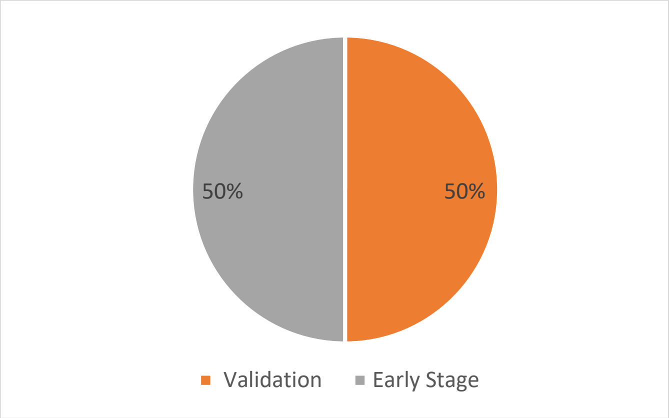
Figure A2.21: Tamil Nadu Deep Tech Startup Policy focus on growth stages of start-ups

Forms of support: The Deep Tech Startup Policy supports all four stages of business life cycle, with predominant support to early-stage start-ups. Research & Development (R&D) support crucial during the ideation and early stage would be provided through funding and R&D infrastructure. Shared testing facilities access would be provided to validate emerging technologies for early-stage deep-tech research. Incubation and mentorship programs initiated by iTNT Hub would connect start-ups with industry experts and research institutions. Public-Private Collaboration with universities and corporate R&D centers would accelerate ideation and besides patent filing support, a single-window platform would also be established to streamline patent applications and IP protection. Tamil Nadu Emerging Sector Seed

Fund (TNESSF) would help early-stage start-ups scale their operations. Grants and financial assistance would be provided to help start-ups conduct proof-of-concept trials. The policy would further aim to support start-ups as they scale their innovations into full-fledged enterprises. iTNT Hub would encourage corporate engagement through strategic collaborations and CSR contributions to nurture deep-tech startups. It would also foster alliances with global innovators to provide scaling opportunities. The policy would outline mechanisms to help start-ups secure growth-stage funding and expand operations. Infrastructure Expansion would be planned to enhance testing facilities, incubation centers, and R&D hubs to support scaling start-ups.

b. **Draft Tamil Nadu Space Industrial Policy

"Foster growth of companies in Tamil Nadu to capture a large portion of the global space market and contribute to the State goal of USD 1 Tn by 2030."



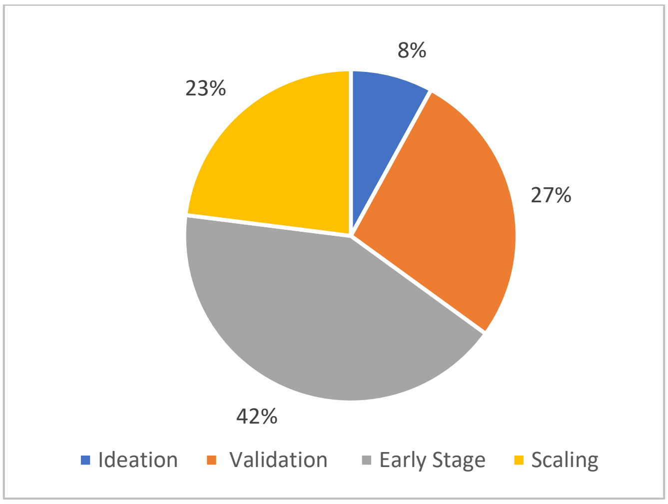
Source: CREST, IITM

Figure A2.22: Tamil Nadu Space Industrial Policy focus on growth stages of start-ups

Forms of support: The Space Industrial Policy would provide strong early-stage support to foster innovation and attract investments in the space sector. Tamil Nadu Emerging Sector Seed Fund (TNESSF) and Tamil Nadu Industrial Development Corporation (TIDCO) would invest in private space-tech firms through Equity Partnerships. Centre of Excellence for Emerging Technologies, a facility under TIDCO would provide industrial access to cutting-edge space technologies in the early stage of development. Reliability Certification Process would ensure all manufactured parts meet stringent quality standards before deployment. Infrastructure Development would establish warehouses, assembly units, and residential spaces to attract businesses. The policy would provide further structured support for the validation and refinement stage of space-tech development. Start-ups and enterprises would test and certify their innovations before commercialization through Satellite Testing Facilities, Public-Private Partnerships (PPPs) and Centre of Excellence for Emerging Technologies

c. Tamil Nadu Startup & Innovation Policy

"The Policy aims to provide comprehensive support across various stages of start-up development, from ideation to market entry and growth."



Source: CREST, IITM

Figure A2.23: Tamil Nadu Startup & Innovation Policy focus on growth stages of start-ups

Forms of Support: Startup & Innovation Policy would establish Sandbox incubators to extend support at the ideation and validation stage of start-ups. They are student-led start-up incubators that would help student founders turn their ideas into successful ventures by providing them with capital, resources, and expertise. They would also aim to create the next generation of venture capitalists by involving students in the venture ecosystem. The Policy would incentivize innovation by providing subsidies for asset creation for Intellectual Property. Infrastructure support to develop prototypes for validation of ideas would be promoted through prototyping Facilities such as Center Of Excellence (COE), TANCAM (Tamil Nadu Center of Excellence for Advanced Manufacturing), Tamil Nadu Advanced Manufacturing Center of Excellence (TAMCOE), Tamil Nadu Smart and Advanced Manufacturing Center (TANSAM), Force of Rapid Transformation (FORT) and so on. Further, prototyping Facilities support would also be provided by Directorate of Technical Education (DoTE) for Start-up aspirants in testing and developing pilot models in various sectors.

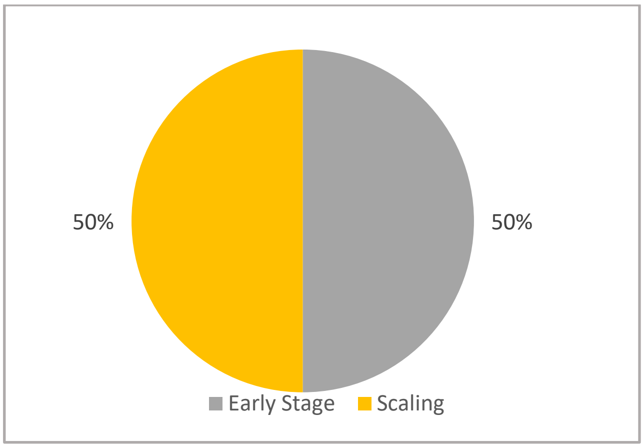
The policy extensively focuses on providing early-stage assistance to start-ups as they need crucial support for product development, market entry, talent acquisition and operational costs to succeed at this stage. Apart from financial incentives through TANSEED, incentives such as New Entrepreneur cum Enterprise Development Scheme (NEEDS), Unemployed Youth Employment Generation Program (UYEGP), Prime Minister's Employment Generation Program (PMEGP) would be provided to encourage new entrepreneurs into the ecosystem. Subsidies such as capital subsidy, payroll subsidy etc. and quality certification support would also be extended to early-stage start-ups.

TANFUND would support the scaling up of start-ups by providing them with direct access to reputed global diverse funding partners. SME IPO (Indian Public Offering) Support

would also be provided for start-ups to access capital markets, to help them raise funds for expansion, working capital, and other needs. Accelerator program and Scaleup Support Programme would be provided to ensure start-ups do not falter at this critical stage of growth. To ensure equitable growth, Social Justice Venture Lab would extend support to start-ups founded by underrepresented entrepreneurs from ideation through assisting them with building a team for scaling.

d. Tamil Nadu Information & Communication Technology Policy

> *"The policy aims to incentivize investment, employment, and intellectual capital creation in the IT/ITeS sector, with special focus on start-ups and MSMEs to facilitate their growth and scaling up."*



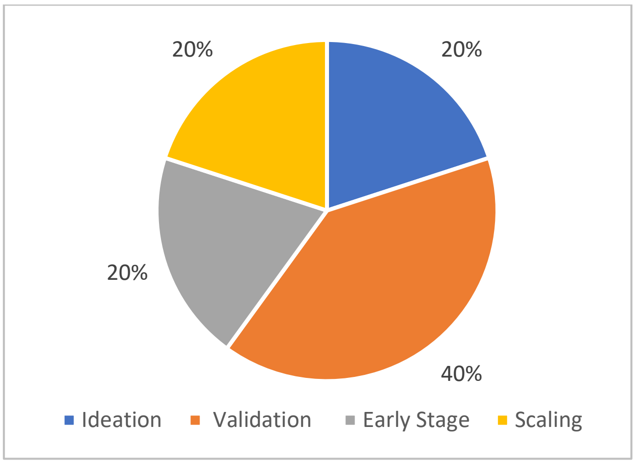
Source: CREST, IITM

Figure A2.24: Tamil Nadu Information & Communication Technology Policy focus on growth stages of start-ups

Forms of Support: The policy would support early-stage and scaling stage start-ups in the IT and ITES sectors. The support would be offered through ELCOT and ELCOSEZ facilities. The facilities would provide the necessary infrastructure, funding, and resources to help these start-ups establish and scale their businesses. This would include assistance with IT infrastructure, access to SEZ benefits, and various government schemes aimed at fostering innovation and entrepreneurship. ELCOT would provide state-of-the-art infrastructure, including office spaces and technology parks. It would also provide financial assistance and grants to start-ups for research and prototype development. Further training programs, workshops, and mentorship sessions would offer help to start-ups develop their business skills and strategies. ELCOT also would facilitate networking events and connect start-ups with potential investors, industry experts, and other stakeholders. It would work with the government to create policies and regulations that are favorable to start-ups, including tax benefits and simplified compliance processes. ELCOSEZ would provide access to SEZs, which would offer tax benefits, duty-free imports, and other incentives to attract scaling stage start-ups. It would offer land allotment on a lease basis to start-ups, providing them with the necessary space to set up their operations.

e. Tamil Nadu Industrial Policy

"The Policy aims to create a conducive environment for start-ups by providing comprehensive support to foster innovation and entrepreneurship."



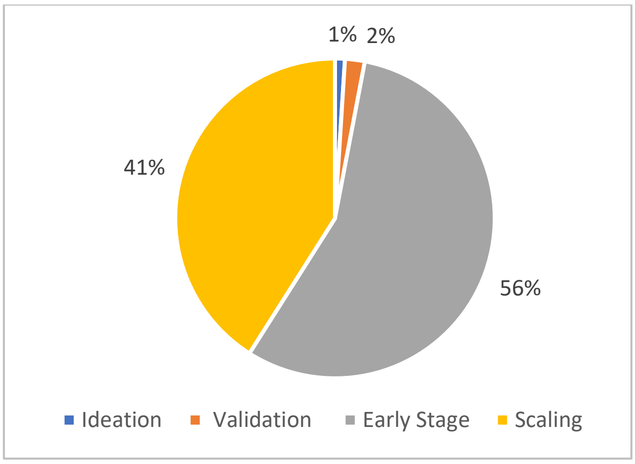
Source: CREST, IITM

Figure A2.25: Tamil Nadu Industrial Policy focus on growth stages of start-ups

Forms of Support: The Tamil Nadu Single Window Portal would offer support to start-ups from early-stage to scaling-stage through multitude of services offered by various departments. The portal would provide a streamlined process with defined timelines for securing business approvals, licenses, and clearances, which is crucial for start-ups at different phases of their development. By offering a one-stop-shop for all necessary approvals, the portal would help reduce the bureaucratic burden and accelerate the setup and scaling process for start-ups. The policy would focus uniformly across the stages with additional focus for validation stage. The Industrial Ecosystem Fund would foster innovation and collaboration between industry and academia, creating a conducive environment for research and development. The fund would support Innovation Centres to build prototypes and validate ideas. The fund would extend support to Focus Sectors such as Aerospace and Defence, Agro & Food Processing, Renewable Energy Components Manufacturing, Electronics System Design & Manufacturing, and so on.

f. Tamil Nadu MSME Policy

"The policy aims to facilitate the scaling up of MSMEs by providing access to affordable finance, augmenting infrastructure support, and enhancing availability of skilled human resources."



Source: CREST, IITM

Figure A2.26: Tamil Nadu MSME Policy focus on growth stages of start-ups

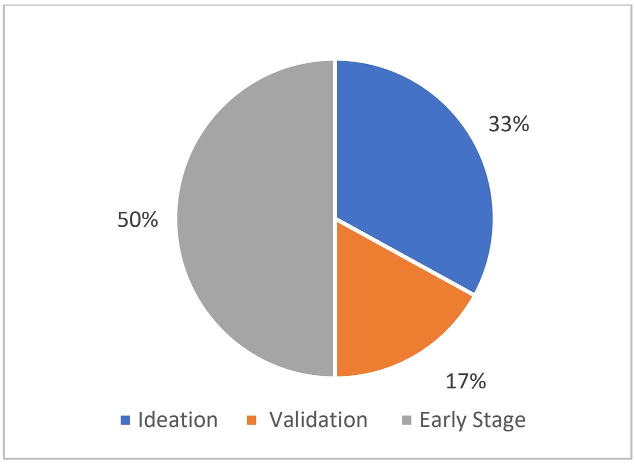
Forms of Support: Tamil Nadu MSME Policy would support start-ups through series of initiatives specifically targeting the growth stages of the start-ups. Innovation Voucher Programme would support start-ups to validate and commercialize a new product or production process. Credit linked subsidies would be provided to encourage new entrepreneurs to launch their ideas. Validation through IPR would be leveraged by extending subsidies for patent, trademark and GI registration.

The policy focuses on early stage and scaling stage of MSMEs to help them transition to be part of start-up ecosystem. The policy would encourage the establishment of venture capital funds to provide financial support to MSMEs, especially start-ups and innovative enterprises in their early stages of growth. Infrastructure and skill development initiatives would support early-stage MSMEs to sustain. Marketing support would be extended through purchase preference for Micro & Small Enterprises in government purchases by participation in the tender process and financial assistance for participation in international trade fairs and exhibitions.

Financial incentives in the form of subsidies and incentives for scaling up would be provided to encourage start-ups to grow. Subsidies on term loans would be provided to support scaling stage MSMEs for upgradation and modernization of production. Financial assistance for listing in the SME exchanges and raising capital from stock markets would be provided. Special incentives and subsidies would be provided for expansion or diversification of MSME units. Policy would facilitate access to working capital for MSMEs through banks, Alternate Investment Fund (AIF) and strengthening of Trade Receivables Discounting System (TReDS).

g. Tamil Nadu R&D Policy

"The policy aims to provide a conducive environment and seamless enablement throughout the journey of start-ups, from ideation to scaling up."



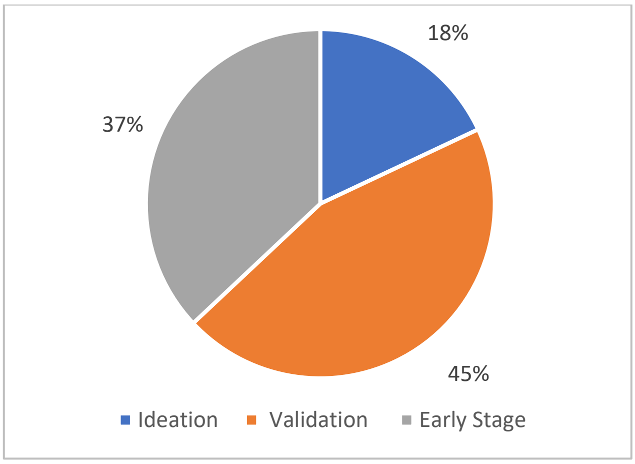
Source: CREST, IITM

Figure A2.27: Tamil Nadu R&D Policy focus on growth stages of start-ups

Forms of Support: Tamil Nadu R&D Policy would include several science and technology schemes aimed at fostering innovation and transforming the state into a knowledge-based economy by 2030. The policy would provide dedicated focus on ideation stage of start-ups to support innovation. The Innovation and Product Development Scheme would aim to cultivate a vibrant ecosystem of innovation by empowering individuals across all sectors to contribute novel ideas and practical solutions. It would provide technical and infrastructural support, feasibility assessment assistance, and financial support for selected innovations. Innovation Centers would be established in industrial parks to support ideation and early-stage development. The TANSEED as a flagship initiative by the Government of Tamil Nadu, would support funding innovation in early-stage start-ups. Funds would be used for prototype development, product trials, or small-level pilot production. The Policy would offer support through incentives to R&D firms to establish and expand R&D Centres and General Capability Centres (GCCs). To further encourage ideation and validation, policy would encourage private sector R&D expenditure and investment in research and development especially in sectors such as aerospace, biotechnology, clean energy systems, electric vehicles, and advanced manufacturing. The Entrepreneurship Development and Innovation Institute (EDII) under the Tamil Nadu R&D Policy would offer the Innovation Voucher Programme (IVP) to support innovative start-ups. The programme would provide financial assistance to convert ideas into working prototypes. Activities include technology roadmap, market research, feasibility studies, financing plans, material studies, design studies, and R&D for new products or processes. The program would further offer commercialization support through service engineering, prototyping, design services, technology transfer, IP procurement, product testing, quality assurance, validation, and project management.

h. Tamil Nadu Electronics Hardware Manufacturing Policy

"The policy aims to provide necessary support for research and development, including prototyping facilities, to encourage innovation and product development in the electronics hardware sector."



Source: CREST, IITM

Figure A2.28: Tamil Nadu Electronics Hardware Manufacturing Policy focus on growth stages of start-up

Forms of Support: The Government of Tamil Nadu, through its agencies, would handhold ESDM companies during the early stage and continue to assist them further. The policy would provide subsidies such as training subsidy from the date of commercialization, capital, interest and land cost subsidies as support during early-stage investments and so on. To support innovative ideas in Hardware Products & Ventures the state would adopt an Investment Portfolio approach covering Innovation Grants (grants for prototyping stage hardware product innovators), Start-up Grants (grants for advanced prototyping stage and market entry stage hardware products), and Seed Capital (financial support in the form of Convertible Debt implemented through the Convertible Note or CCPS instruments or in the form of Equity investments). The policy would promote Incubation and seed investments in innovative Hardware Products & Ventures through implementation of Hardware start-ups focused accelerator programs combined with Seed capital investments. It would provide financial assistance in the form of complementary funds offered to mature Technology Business Incubators.

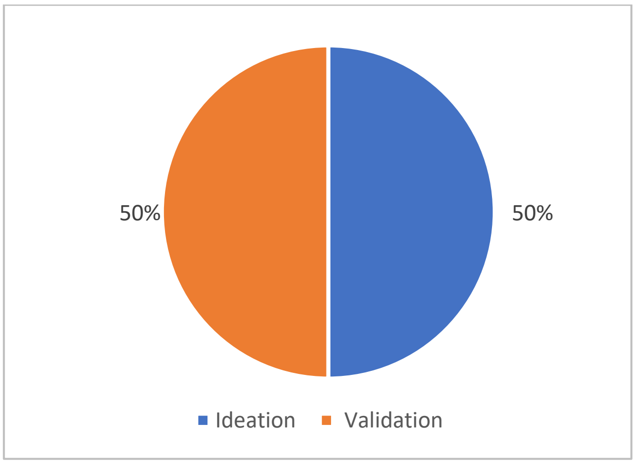
As observed from Figure 26, policy would offer numerous support for validation stage through grants to cover costs related to materials, labor, and other expenses and access to technical expertise and infrastructure such as Rapid Product Prototyping Lab, Innovation, Design & Development (IDD) facilities to help innovators develop and refine protypes of pre-commercial designs of industrial grade hardware solutions using state-of-the-art equipment. Further assistance in the form of mentorship and training would be provided in assessing the feasibility of pre-commercial designs of innovative ideas and prototypes, ensuring they are viable for market entry. Guidance on IP protection and Platforms for innovators to showcase their prototypes and innovations, for gaining

recognition and encouraging further development would also be offered. The support offered would enable innovators to quickly develop and test their ideas and facilitate transition from prototype to market ready products more efficiently.

Industrial parks developed by ELCOT, SIPCOT and SIDCO would have ready built 'Plug-and-Play' facilities so that early stage ESDM industries can commence production immediately without the need for extensive setup time and investment. These facilities would provide necessary utilities, administrative and operational support. This initiative would aim to reduce the barriers to entry for start-ups and small businesses, enabling them to focus on production and growth from day one.

i. Tamil Nadu Aerospace & Defence Industrial Policy

"The policy aims to create a conducive environment for start-ups by providing access to advanced computing, design engineering centers, and investor-friendly initiatives to foster innovation and growth."



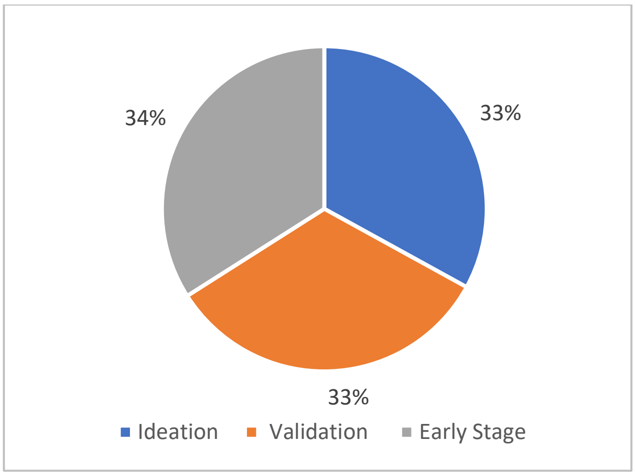
Source: CREST, IITM

Figure A2.29: Tamil Nadu Aerospace & Defence Industrial Policy focus on growth stages of start-ups

Forms of Support: The Tamil Nadu Emerging Sector Seed Fund (TNESSF) is a joint initiative by the state government's Finance and Industries Departments. It would aim to provide seed funding to start-ups in emerging sectors, including aerospace and defence. The policy would provide exclusive focus on ideation and validation stage start-ups since the sector is at a nascent stage. This encourages new entrepreneurs to build innovative products targeting this sector. The policy also would include extensive provisions for creating a robust ecosystem to support testing and prototyping in the aerospace and defence sectors. One of the key initiatives under this policy would be the Support for Prototype and Research Kickstart (SPARK) framework, which is part of the Innovations for Defence Excellence (iDEX) program. The support would include Grants to start-ups to develop prototypes and commercialize products/solutions relevant to national defence and security. Grants would be disbursed as milestone-based funding and would be used for research and development, prototyping, pilot implementation, market assessment, and other related activities.

j. Tamil Nadu Safe & Ethical Artificial Intelligence Policy

"The policy aims to encourage innovation in AI by providing a framework for safe and ethical development, ensuring that AI technologies are aligned with democratic values and contribute to the public good."



Source: CREST, IITM

Figure A2.30: Tamil Nadu Safe & Ethical Artificial Intelligence Policy focus on growth stages of start-ups

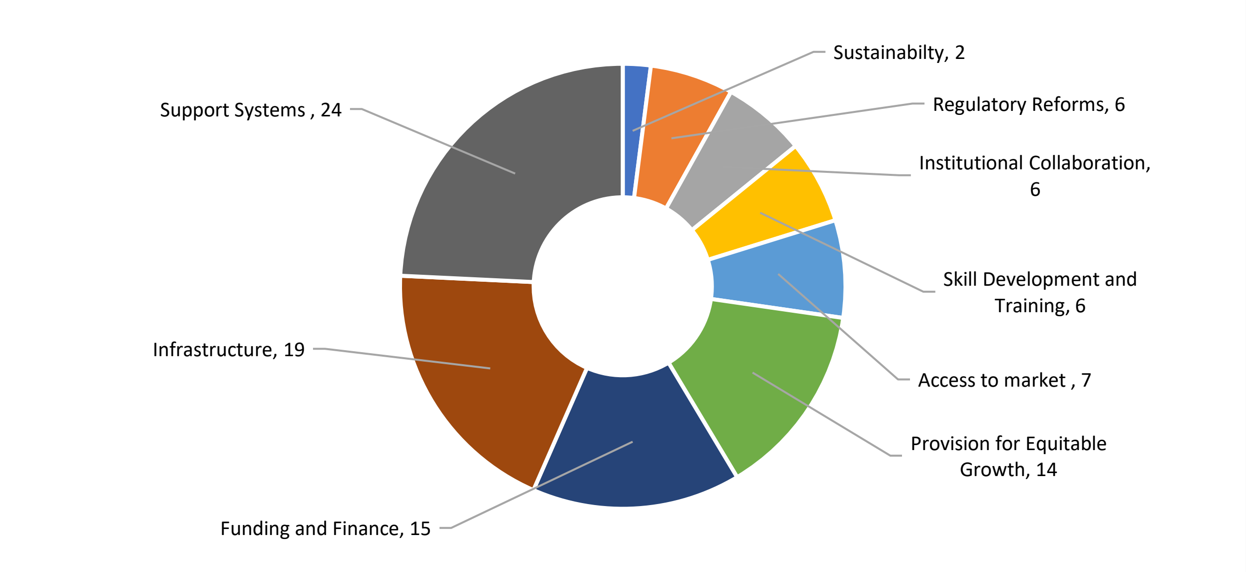
Forms of Support: The policy would focus uniformly on ideation, validation and early-stage start-ups to encourage new products to conform to the safety and ethics regulations to reach the market. The policy would include a sandbox framework as a significant component to act as a testbed to evaluate AI systems before they are rolled out to the public. This sandbox would allow developers to test AI solutions in a controlled environment to ensure they meet the policy's guidelines on transparency, accountability, misuse protection, digital divide, ethics, and fairness. Further, sandbox framework would allow developers to experiment with innovative ideas and technologies in a controlled setting. Participating firms would often receive temporary waivers from specific legal provisions or compliance processes, enabling them to innovate without the constraints of existing regulations. This flexibility would help address the fast pace of AI developments. Funding and support would be typically disbursed based on achieving specific milestones. The sandbox framework would include mechanisms for evaluating the performance and impact of AI systems. Feedback from these evaluations would help refine and improve the AI solutions before they are deployed in the real world.

ANNEXURE 3 - THEMATIC ANALYSIS WITHIN POLICY

3.1 Emerging themes and trends within state policies

a. Tamil Nadu

Tamil Nadu, the second largest economy in the country which contributing to 8.8 percent to the National GDP[3], is known as an Industrial Powerhouse. Its journey towards the development of a start-up ecosystem began in 2009, with the establishment of the Tamil Nadu Entrepreneurship Development and Innovation Institute (EDII). In 2018, It reached a major milestone came with the launch of its first comprehensive "Start-up and Innovation Policy", with an aim to create 5,000 start-ups by 2023. Following which, the Tamil Nadu Start-up and Innovation Mission (TANSIM) was established in 2021 as the nodal agency for the ecosystem. The state built on its success with an updated policy in 2023, which focused on creating infrastructure for emerging technologies and regional hubs.



Source: CREST, IITM

Figure A3.1: Distribution of themes within Tamil Nadu's start-up policy using the weighted average method

The states policy document for start-ups presents a thorough framework, categorized into nine key themes, outlining various initiatives to nurture the entrepreneurial ecosystem and its stakeholders. (Refer Fig. A3.1) Three themes stand out as the most prominently present: 'Support Systems' 'Infrastructure' and 'Funding and Finance', based on the number of initiatives, schemes, or programs under these categories. Initiatives supporting the development of the ecosystems 'Support Systems' make up for almost one-fourth of the total policy, which helps create a conductive environment for growth or start-ups. The three prominent themes – support systems, infrastructure, and funding and finance make up for more than half of the total the available policy initiatives of the state's policy.

[3] https://www.msmetamilnadu.tn.gov.in/why-tamilnadu.php#:~:text=It%20is%20the%20second%20largest%20economy%20in,products%2C%20chemicals%2C%20engineering%20products%20and%20IT%20&ITES, Website, Accessed 07.02.2025

Further emphasizing on their significance in development of the states start-up ecosystem.

Unique Features of the Tamil Nadu's Start-up Policy

The start-up policy of Tamil Nadu has some distinctive features that set it apart from other state policies which are examined in that study. They are

- **Extensive Digital Infrastructure:** The State has created digital platforms to support start-ups in various areas. Such as funding via AngelTN and TANDFUND, Marketing via LaunchPad and Marketing Portal. Support for skill development via Learning & Development Portal and BrandLabs, etc. These are only a few of the initiative put forward in the states policy.

  "A Learning and Development Portal comprising many self-learning video courses covering real time scenarios of a Startup journey will be developed." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

- **Targeted Funding Schemes: T**ANSEED for equity-linked grant fund in support of rural impact, climate action and women-led start-ups. Tamil Nadu Emerging Sector Seed Fund for investing in MSME and start-ups in emerging sectors. The state has created a unique fund with a focus on supporting entrepreneurs from the SC/ST community called TN SC/ST Startup Fund.

  "StartupTN will identify beneficiaries from the SC/ST communities to provide assistance in the form of equity investment or debt. Scalable business models and models based on Indigenous Traditional Knowledge (ITK), which can be commercialised, will be encouraged." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

- **Focus on International Funding Opportunities:** The states BeyondTN initiative gives focus on attracting foreign investments into the market for the growth of the local start-up ecosystem. It supports participation by start-ups in International Expos and establishment of centres around the globe.

  "To facilitate a soft landing, and to attract investments from Global Investors for Tamil Nadu Startups, 'Global Coordination Centres' under Beyond TN will be established strategically across the Globe in a phased manner." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

- **Support to Prevent Start-up Failure:** The state has proposed to help prevent failure of start-ups due to funding inaccessibility of funding, inability to meet capital requirements and/or rising inflation. They offer to provide reconstruction

services through incubators and other private organisation to help rebuild the start-ups framework.

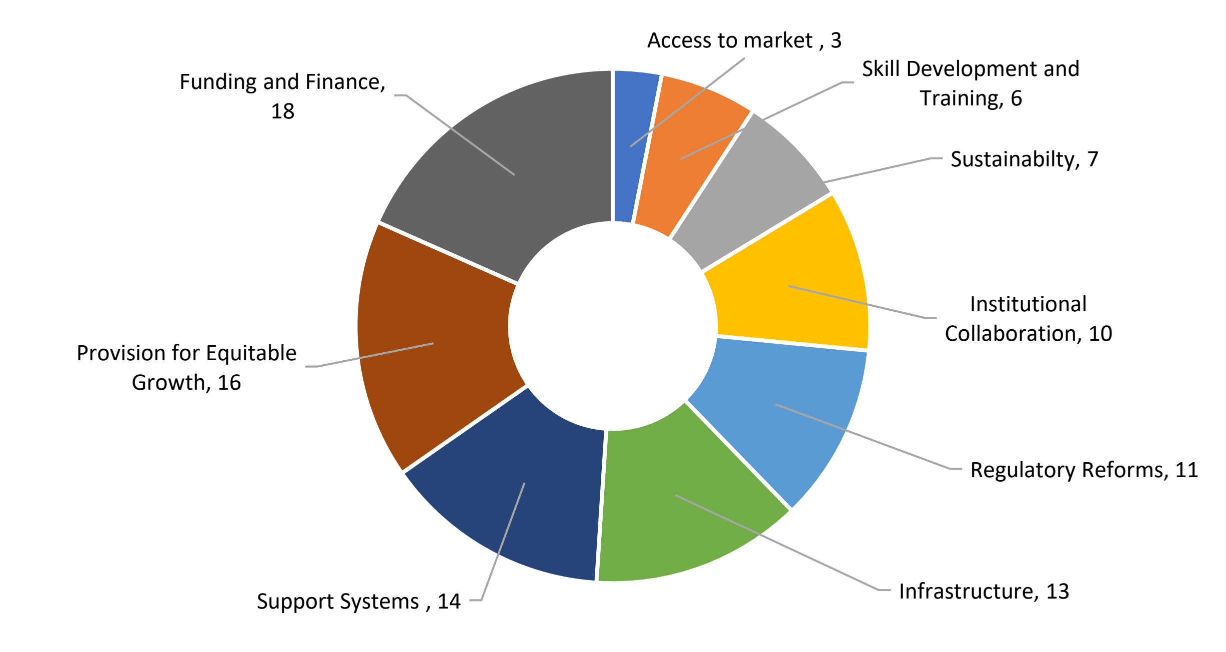
"The State Government will collaborate with incubators and private organisations to provide dedicated support services to restructure their business model." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

- **Incubator Support at Tier II and Tier III cities:** The state has proposed to establish "Sandbox Incubators" in Tier II and Tier III cities across the state, which will help increase regional inclusivity within the state.

  "More than 30% of the Tier II and III Cities still lack a formal structure for the Incubation Centre. To address this gap, Institutional Startup Circles (ISCs) as mentioned in the para 7.2.3 of this Policy will be established every year. Based on their annual performance, selected ISCs will be provided with an establishment cost of INR 50 lakh to set up Incubation Centres. These Incubation Centres will be called 'Sandbox Incubators'." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

b. Karnataka

Karnataka's status as the IT Hub of India was established in the 1980's due to its pioneering contribution in India's IT revolution. The state launched its first dedicated Start-up Policy in 2015, establishing Karnataka Innovation and Technology Society (KITS) as the nodal agency. The New Age Innovation Network (NAIN) incubators that were introduced with the launch worked to strengthen the ecosystem. In 2017, The Elevate program, became the flagship initiative of the state which provides funding to innovative start-ups. Its latest revisions of the policy were launched in 2022, introducing the Beyond Bengaluru initiative to develop regional innovation hubs.



Source: CREST, IITM

Figure A3.2: Distribution of themes within Karnataka's start-up policy using the weighted average method

Divided into nine themes, Karnataka's start-up policy framework provides a strategic blueprint for fostering start-up growth through targeted schemes and support mechanisms. (Refer Fig. A3.2) Three themes stand out as the most prominently present: 'Funding and Finance', 'Provisions for Equitable Growth' and 'Support Systems' based on the number of initiatives, schemes, or programs under these categories. The top three categorizes identified, make up for almost half the total amount of initiatives within the policy, it helps establish a well-developed start-up ecosystem with focus on social and regional inclusivity. It is interesting to note that the three themes – funding and finance, provision for equitable growth and support systems have almost been given equal weightage, bringing forward the importance of each of these themes in the states start-up ecosystem.

Unique Features of the Karnataka's Start-up Policy

The start-up policy by Karnataka has some distinctive features that set it apart from other state policies which are examined in that study. They are

- **Specified Centre for Rural Innovation:** The state has stated in its policy that it intends to support the establishment of Rural Innovation Centre that will help entrepreneurs in rural areas get access to resources to promote innovation development.

  "Government intends to establish Rural Innovation Centre with a funding support of upto INR 15 Crore at a government academic institution set up Beyond Bengaluru" – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

- **Collaborate Effort for Developing Assistive Technology:** The state has focused on social inclusivity by providing funding for development of a Centre of Excellence for Assistive Technology. This is in collaboration with the Department of Empowerment of Differently Abled and Senior Citizens.

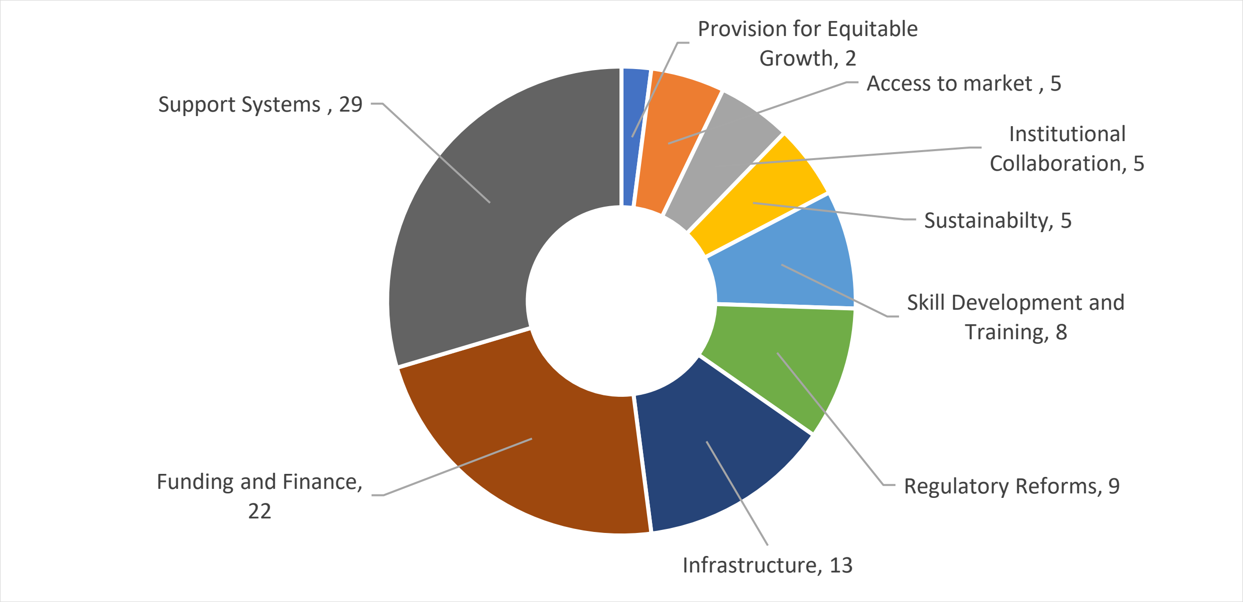
  "The State Government will facilitate setting up a Centre of Excellence for Assistive Technology (AT) with a grant/funding support of INR 15 Crore to develop innovative products and solutions for Differently abled community and senior citizens, in collaboration with Department of Empowerment of Differently Abled and Senior Citizens, academia, and industry partners" – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

- **Proactive Focus on Sustainable Development Goals (SDGs):** The state has put forward Accelerating Transition to Circular Economy, in support of development of start-ups that are focused on the creations of products that are aligned with the SDGs such as Renewable Energy, Climate Change and Circular Economy. They have allocated for a funding support, an acceleration programme and a resource centre under this scheme.

  "Government will setup a dedicated Resource Centre to encourage and support Circular Economy Innovation startups with a funding support of upto INR 50 lakhs during the policy period." – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

c. Kerala

Kerala, known for its remarkable achievements in human development and social welfare, has emerged as a promising hub for innovation and entrepreneurship in the recent years. The Kerala Startup Mission (KSUM), formerly known as Technopark-Techology Business Incubator (T-TBI) set up in 2007, is now the designated nodal agency for start-ups across the state. The Government of Kerala announced the 'Student Entrepreneurship Policy' in 2012 to create a culture of entrepreneurship amongst students and 'The Kerala Technology Startup Policy 2014' was introduced to empower youth entrepreneurship. In 2017, the "Technology Innovation Entrepreneurship Policy" was launched as a sub-section of the state's IT policy.



Source: CREST, IITM

Figure A3.3: Distribution of themes within Kerala's start-up policy using the weighted average method

Kerala's start-up policy document outlines a comprehensive approach and strategy for various schemes and initiatives aimed at entrepreneurs and stakeholders in the start-up ecosystem through nine categories or themes (Refer Fig. A3.3) Based on the number of initiatives, schemes, or programs under each category, three stand out as the most prominent: 'Support Systems', 'Funding' and 'Infrastructure'. More than one fourth of the policy is dedicated to outlining initiatives and schemes focused on building robust support systems for start-ups Collectively, these three areas – support systems, funding and finance and infrastructure – account for more than half of the total schemes and policies detailed in the document, highlighting their significance in shaping Kerala's start-up ecosystem.

Unique features of the Kerala Start-up Policy

The start-up policy of Kerala has some distinctive features that set it apart from other state policies examined in the study. They are

- **Strategic Lifecycle-Based Policy Framework for Start-up Development:** Kerala has presented its policy in a unique format by addressing the schemes by stages of the start-up lifecycle in its policy subsection "Support for entire Startup Like cycle". The stages of the start-up lifecycle are divided into four categories – validation, product development, commercialisation, and scale-up. Each stage has its own set of policy interventions that are catered for the development of the start-up with focus of the stage it is in.
- **Proactive Failure Management and Entrepreneurial Resilience:** The state has accommodated for failure of start-ups under its policy sub-section "Accommodating Failures". It describes the states intent to support start-ups that have lost viable

competitiveness in the market. The sub-section is divided into – “Winding up facilities” that included “Distress Funds”, “Repeated Attempt”, and “No Failed Entrepreneur”[4].

“If the start-up had a compelling reason to borrow and attempt the idea and it is seen that they had genuinely attempted it then the government shall write off/ reimburse debts of such start-ups through a fund created under Distressed Startups Fund.” - Sub policy 7, Technology Innovation and Entrepreneurship Policy, 2017 (Department of Information Technology, Kerala)

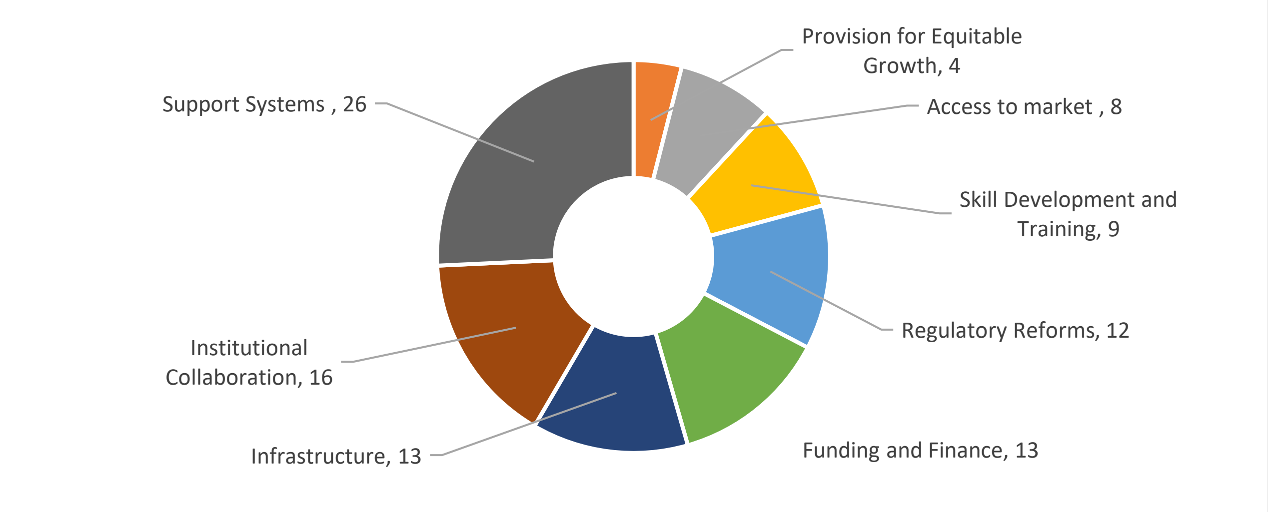
- **Expert-Driven Start-up Validation Support:** The state offers expert advice during the validation stage of the start-up lifecycle. The support offered includes validation based on technical feasibility, commercial viability and idea refinement and patent support.

“The services of a network of technology experts shall be made available to the startups to discuss the technical feasibility of their product ideas. The empanelled list with KSUM, KSCSTE and experts from Academia and scientific institutions shall be part of the network"- Sub policy 7, Technology Innovation and Entrepreneurship Policy, 2017 (Department of Information Technology, Kerala)

c. Maharashtra

Maharashtra, known for its growth in the financial sector, began its start-up ecosystem journey with the launch of Maharashtra Centre for Entrepreneurial Development (MCED) in 1988. Maharashtra is also the only state to launch its start-up policy ‘Maharashtra State Innovative Startup Policy’ in 2018 through the Department of Skill Development and Entrepreneurship, which prominently sets it apart. Following the launch, Maharashtra State Innovation Society (MSInS) was established as the nodal agency to implement policy initiatives. In 2023, it launched its ‘Maharashtra State Entrepreneurship Mission’ in efforts to create skilled workforce with significant job opportunities and economic development.

[4] Panicker, Robin Alex. “Kerala’s New Startup Policy has a ‘No Failed Entrepreneur’ Agenda.” *Medium,* 17 Mar 2017, https://robin-a-p.medium.com/keralas-new-startup-policy-has-a-no-failed-entrepreneur-agenda-e04a94b8446c. Accessed 17 Jan 2025.



Source: CREST, IITM

Figure A3.4: Distribution of themes within Maharashtra's start-up policy using the weighted average method

The framework of Maharashtra's start-up policy is divided into eight themes, which gives a comprehensive understanding of initiative and schemes provided by the state for development of the start-up ecosystem. (Ref. Fig. A3.4) 'Support Systems' 'Institutional Collaboration' and 'Infrastructure', and 'Funding and Finance', have been identified as the most prominent themes within Maharashtra's start-up policy. 'Support Systems' has been given prominent focus in the policy, with one-fourth of the policy being dedicated to creating a well-establishing support system. 'Infrastructure' and 'Funding and Finance' have been given the same weightage of importance within the policy, which ties them to be the third leading themes. Collectively, the four identified themes make up for two – third of the total policy interventions, emphasising the role they play in the development of the states start-up eco-system.

Unique Features of the Maharashtra's Start-up Policy

The start-up policy of Maharashtra has some distinctive features that set it apart from other state policies which are examined in that study. They are

- **Differentiated Incubator System across the Ecosystem:** Maharashtra has focused on creating Incubator systems specific to development within different fields such as – Academia, Research, Rural and Social, Private (Corporate and Industry) which sets it apart from other states. This focus field-specific incubation support helps them differentiate the needs of the start-ups based on their type.
- **Utilization of CSR Funds for Infrastructural Development:** The CSR Funds collected by the government is to be used to support and develop the players of the start-up ecosystem such as incubators and accelerators. It is a great example of using the stakeholders of the economy to boost the development of the start-up ecosystem.

"*Private and public corporations will be encouraged to Utilise CSR funds towards support of all incubators, accelerators, CoE and the Startup Park*" - Maharashtra State Innovative Startup Policy, 2018 (Maharashtra State Innovation Society (MSInS), Department of Skill Development and Training)

- **Supportive Environment for Crowd funding:** The policy has given provisions for start-ups in the social sector that may face difficulty in raising funds via traditional means.

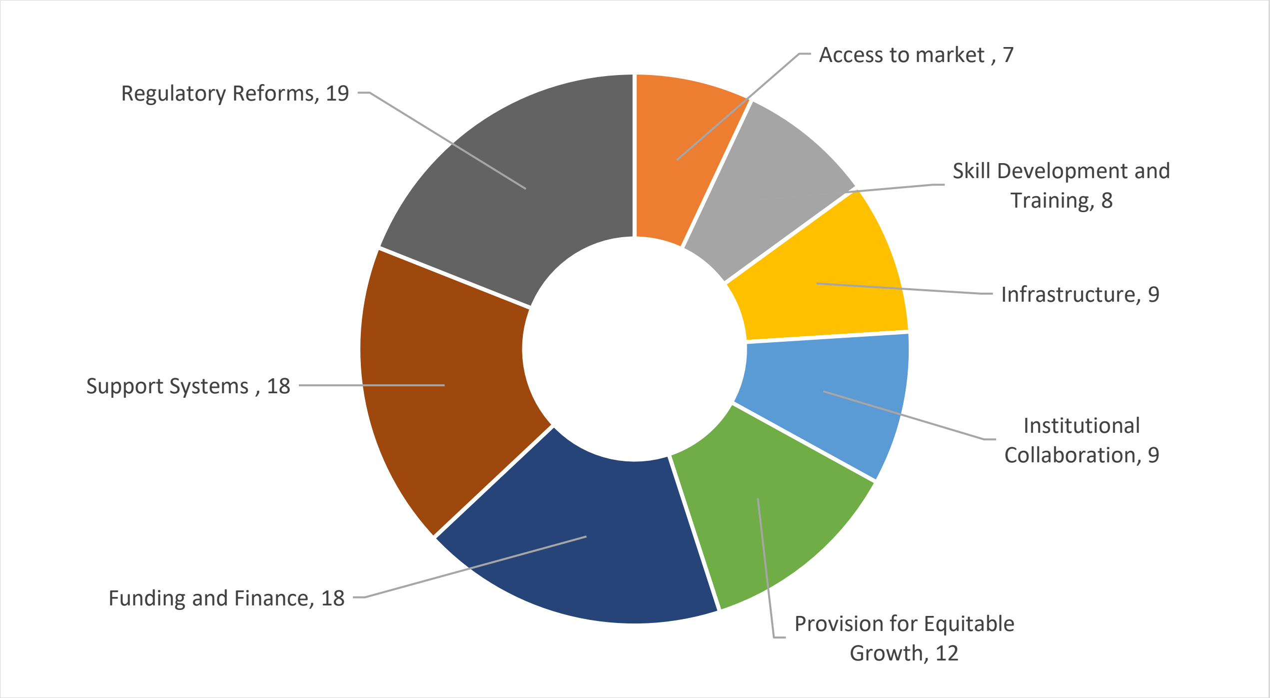
  "*The State will provide vital financial support to the Social sector startups. They may receive grants matching the contributions raised on verified online crowdfunding platforms, up to ₹5 lakhs* " - Maharashtra State Innovative Startup Policy, 2018 (Maharashtra State Innovation Society (MSInS), Department of Skill Development and Training)

- **Establishing Events that Support Start-ups:** Startup Week, Start-up Synopsis and Get Together are some of the initiatives put forward by the state to create a platform for the start-ups to present their ideas. Start-up Week also establishes an opportunity to attain public procurement orders from the government.

  "Three startups from each selected sector will be selected and awarded a work order of amount of ₹10-15 lakhs to prove their concept. It is expected that MSInS may provide proof of concept opportunity to about 15 to 20 startups every year" - Maharashtra State Innovative Startup Policy, 2018 (Maharashtra State Innovation Society (MSInS), Department of Skill Development and Training)

d. Odisha

Odisha, known for its rich culture and minerals, has gained significant momentum its start-up growth since the introduction of its "Startup Odisha" initiative in 2016. The initiative covered the launch of its 'Odisha Start up Policy' followed by the establishment of the 'O-Hub' Incubation Centre as a one stop destination for start-ups, entrepreneurs and investors. In 2018, Odisha launched 'Odisha Start-up Yatra' its initiative to scout for innovators and aspiring entrepreneurs in educational institutions.



Source: CREST, IITM

Figure A3.5: Distribution of themes within Odisha's start-up policy using the weighted average method

Through eight distinct themes, the Odisha's start-up policy lays out a detailed roadmap of programs and interventions designed to support entrepreneurs and other key players in the start-up ecosystem. (Ref. Fig. A3.5) The prominent themes of the state's policy were identified based on the number of initiatives, schemes and programs - 'Regulatory Reforms' 'Funding and Finance' and 'Support Systems' were identified as the leading themes of the state. The top three themes identified amount for more than half of the states total interventions offered in the policy. They also have been given equal weightage within the policy, highlighting their importance in development of the start-up ecosystem.

Unique Features of the Odisha's Start-up Policy

The Maharashtra start-up policy has some distinctive features that set it apart from other state policies which are examined in that study. They are

- **Collaborative Efforts with Industry Groups:** The state has focused of providing start-ups with expert knowledge and opportunity for growth in industry-specific areas by collaborating with Industry Groups/House.

  "The State will encourage existing Industrial groups in existence for at least 5 years in the State to support the Startup / Innovation drive"

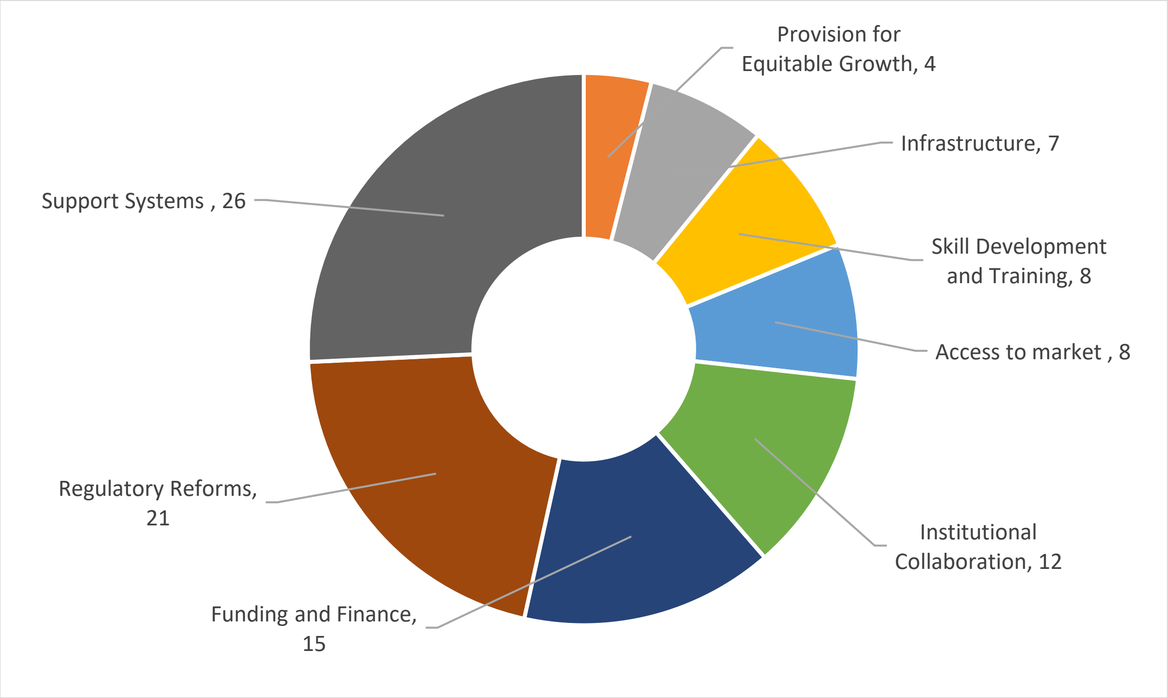
- **Support through Sector Specific Incubators:** The state has policy interventions that support the development of sector-specific incubators that can provide start-up with mentorship, and guidance within their field of innovation.

“Sector-specific incubators shall be encouraged in areas such as IT/ITEs, Healthcare and Sanitation, Agri Business and Food Processing, Hi-Tech farming, Tourism, Textiles and Garments, Chemical and Petrochemicals, Downstream and Ancillary”

- **Inclusivity-Focused Policy Measures:** The state offers a Monthly Allowance during the Idea/ Prototype stage and Marketing/ Publicity Assistance once the idea/concept of start-up gets commercialized. These are offered to entrepreneurs that require assistance based on their Socio-Economic disadvantages. This encourages increase in social inclusivity within the start-up ecosystem.
  “Monthly allowance of Rs.20,000 (The monthly allowance shall be Rs.22,000/-, if the startup Founder (s)/Co -Founder (s) are Women or transgender or from Social Categories such as SC/ST/SEBC/PH.”

e. Gujarat

Gujarat is historically known for its strength in trade and commerce. The early foundations for its start-up ecosystem were laid by a strong entrepreneurial culture and institutions like the Centre for Entrepreneurship Development (CED) in 1979 and the Entrepreneurship Development Institute of India (EDII) in 1983. Financial support was facilitated by with Gujarat Venture Finance Ltd. (GVFL) in 1990 in collaboration with the World Bank. IIM-Ahmedabad, in 2002, set up incubation centres to foster innovation in aspiring entrepreneurs. The state government has played a proactive role in development of policies like the Start-up Scheme under Industries Department in 2015, followed by the Student Startup and Innovation Policy (SSIP) under Education Department in 2016 that was revised in 2023.



Source: CREST, IITM

Figure A3.6: Distribution of themes within Gujarat’s start-up policy using the weighted average method

Gujarat's start-up policy has presented a thorough framework outlining support for eight distinct themes with various schemes and initiatives in support of the development of its start-up ecosystem. (Ref. Fig A3.6) The prominent themes of the state's policy were identified based on the number of initiatives, schemes and programs - 'Support Systems' 'Regulatory Reforms' and 'Funding and Finance' were identified as the leading themes of the state. 'Support Systems' has been given prominent emphasis, with its initiatives making for a quarter of the policy, closely followed by 'Regulatory Reforms'. The top three themes identified amount for more than half of the states total interventions offered in the policy, emphasising their prominence in development of the start-up ecosystem.

Unique Features of the Gujarat's Start-up Policy

The Gujarat start-up policy has some distinctive features that set it apart from other state policies which are examined in that study. They are

- **Multiple Start-up Supportive Policy Documents:** Gujarat is the only state, out of all the states selected for our analysis that has multiple start-up-related policy documents. They are focused on different aspects of the economy such as Industrial and Student-led start-ups, presented as primary start-up-supportive policy document.
- **Comprehensive Governance Mechanism:** It has a 4-tier system for governance within its Student-Focused policy: State Level Apex Committee (SLAC), Policy Implementation Committee (PIC), Gujarat Knowledge Society (GKS) and Project Management Units (PMU's). The state having assigned specific roles to these governance bodies ensures that there isn't an overlap in the tasks performed by various governing entities and also helps them make effective decisions within their purview.
- **Proactive Funding Schemes:** The state has a scheme called Pre series A Funding is unique to the state, it helps establish a funding opportunity for start-ups that face difficulty in gaining funding post the commercialisation stage of the start-up lifecycle.

  "In the life cycle of a Start-up, there is a funding gap which is better identified as valley of death. This is a phase post commercialization where the start-up has just started generating revenue till the time period where its product/ service gets market traction....This assistance will cater the start-ups that have already received seed support from the government under various schemes for promotion of start-ups." Industrial Policy, 2020 (Industries and Mining Department, Gujarat)

- **Transparent Monitoring and Evaluation Mechanism:** The state has given importance to the development of a monitoring mechanism that ensures that start-ups are meeting the milestones required to attain further funding. This helps increase accountability of the start-ups to ensure efficient usage of funding availed.

“A digital interface will seamlessly integrate all stakeholders to monitor each milestone in real time. Progress of key goals with respect to set KPIs will be publically shared periodically.” - Student Start Up and Innovation Policy for the State of Gujrat (SSIP 2.0), 2022 (Education Department)

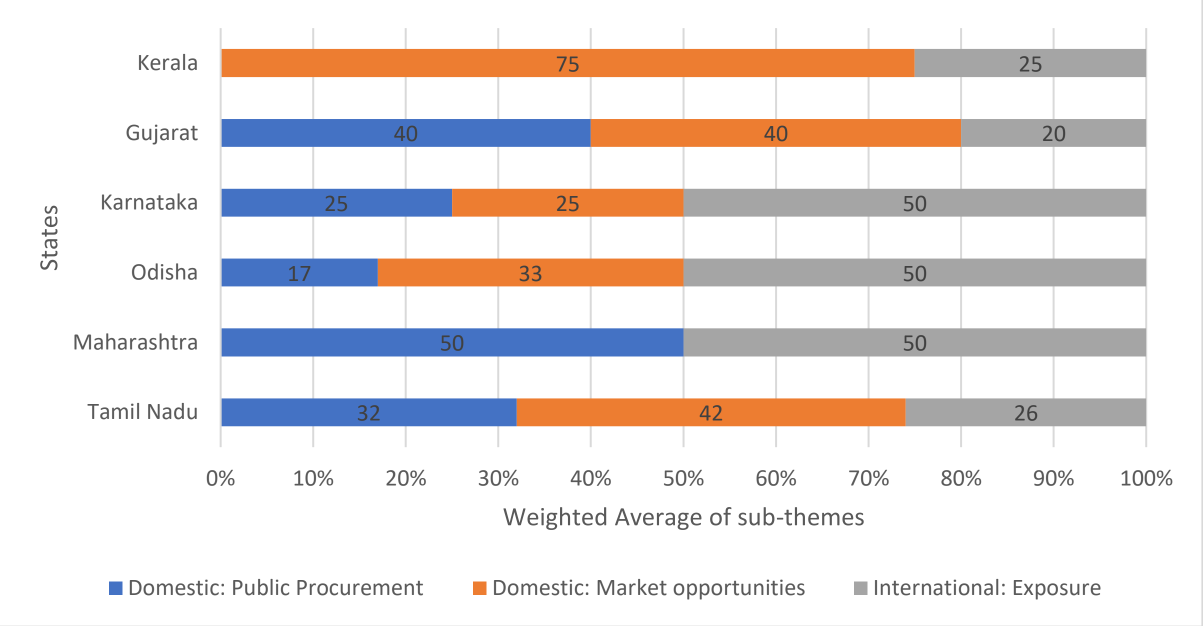
- **Extensive Support Intellectual Property:**_The state has provided support for start-ups at both state and educational institutional level for IPR support for filing, and funding the innovation. They have funding support for Patents, Trademarks, and Industry Design etc. They also provide support for dropouts who would require support related to IPR, which is unique to the state’s policy.

  “Any dropout from school/ institutes/ university can avail the PoC/ Prototype/ IPR support by registering as the policy beneficiary at educational institutional level.” - Student Start Up and Innovation Policy for the State of Gujrat (SSIP 2.0), 2022 (Education Department).

3.2 Sub-theme analysis within state policies

a) Access to Markets

The broader theme of Access to Markets was further categorized into Domestic and International. This helped to study the support offered towards creation of a market environment that is conductive towards the growth of the start-up ecosystem by the states. Figure A3.7 shows the distribution of the sub-themes within the category of access to market, with numbers representing the total number of schemes and initiatives offered by the state calculated using the weighted average method.



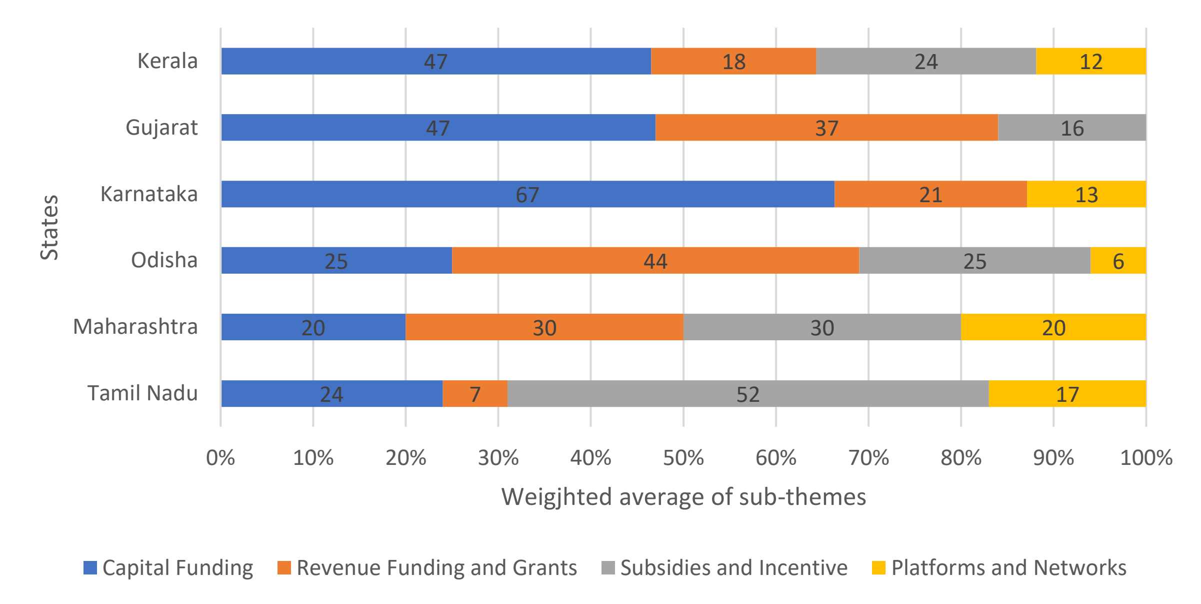
Source: CREST, IITM

Figure A3.7: Distribution of sub-themes within each state’s start-up policy for access to market using weighted average method.

The distribution of the sub-themes help analyse the approach taken by the states towards growth of market potential for start-ups. All the state policies have provided market support for start-ups in both the domestic and international terrain. (Ref. Fig. A3.7). The start-up polices of Gujarat, Kerala and Tamil Nadu have favoured providing the start-ups with provisions to grow within the domestic market. This creates a favourable market environment for start-ups to helps increase the economic growth of the state and cater to solving local challenges with innovative ideas. The policies of Odisha, Maharashtra and Karnataka are focused on providing equal opportunity to grow in both markets. With the additional focus on international market exposure, they also create new avenues for start-ups to expand their reach towards foreign markets and attract investment opportunities.

b) Funding and Finance

To systematically address financing needs of start-ups, the 'Funding and Finance' theme was categorized further into four sub-themes: Capital Funding, Revenue Funding and Grants, Subsidies and Incentives, and Platforms and Networks. This structure presents a clear overview of the various financial support present in the states. Figure A3.8 illustrates the distribution of the sub-themes within the funding and finance category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



Source: CREST, IITM

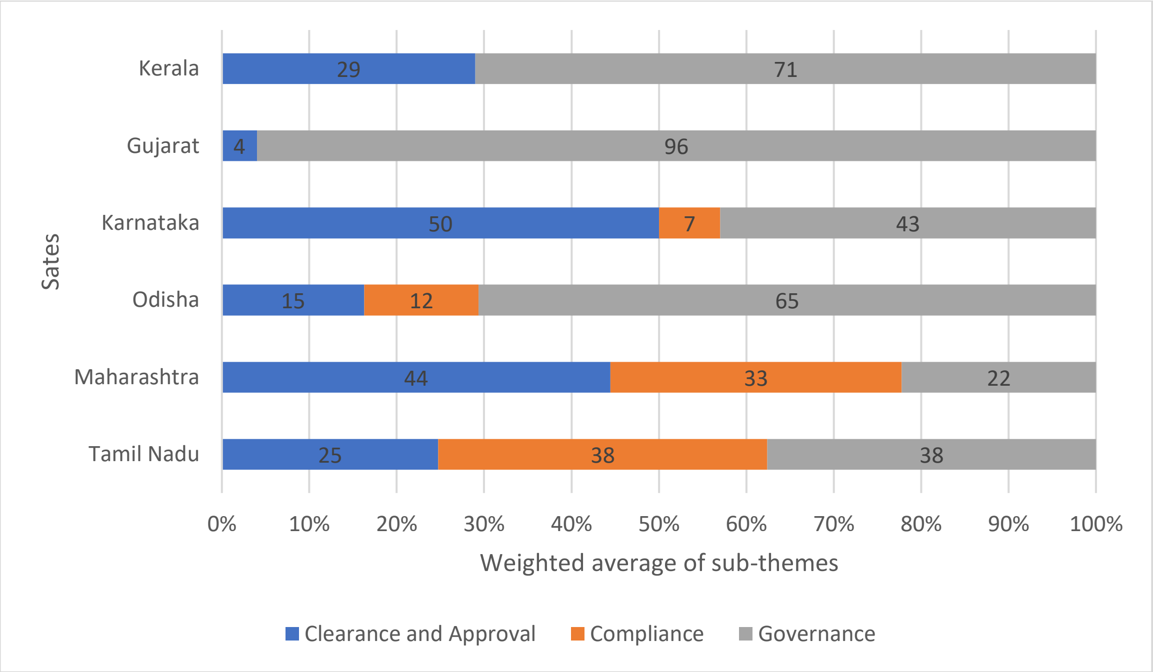
Figure A3.8: Distribution of sub-themes within each state's start-up policy for funding and finance using the weighted average method.

The funding and finance strategies of different states reveal diverse opportunities for start-up to receive funding support. From Figure A3.8, Karnataka prioritizes Capital

Funding which helps cover the cost of operations and setting up for the start-ups especially in their early stages, while Odisha emphasises on Revenue Funding and Grants to help start-ups gain funding without diluting their ownership rights over the start-ups. Tamil Nadu focuses on subsidies and incentives by providing funds without increasing their overall burden of repayment. Maharashtra stands out by providing balanced support across all sub-themes. These variations reflect the unique needs and growth trajectories of each state's start-up ecosystem, demonstrating a nuanced approach to financial support that is tailored to the state's entrepreneurial landscape.

c) Regulatory Reforms

The 'Regulatory Reforms' framework consists of three sub-categories: Clearance and Approvals, Compliance, and Governance. This organized approach helps start-ups navigate the full range of available regulatory support offered by the state policies. Figure 9 illustrates the distribution of the sub-themes within the regulatory reforms category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



Source: CREST, IITM

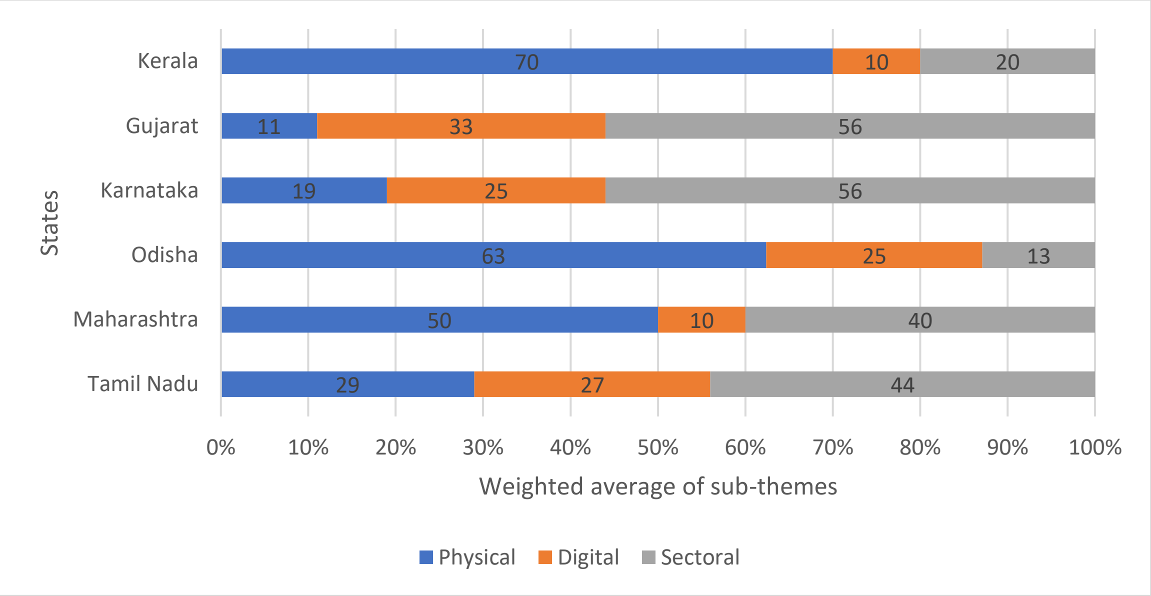
Figure A3.9: Distribution of sub-themes within each state's start-up policy for regulatory reforms using the weighted average method.

The patterns of distribution across the state policies showcase the different focus areas for regulatory reforms in the state policies. From Figure A3.9, Karnataka has prioritised initiatives that support ease of registration for start-ups and reimbursement of costs incurred by start-ups for certifications and quality assurance via Clearance and Approval. Tamil Nadu has given support for under Compliance for start-ups by providing handholding facilities and guidance for legal and financial management. Gujarat has focused on creation of a model for Governance that helps in systematically monitoring

and evaluating the support offered to start-ups across the bodies of regulations. The distribution under this theme addressed the support offered by states to meet the statutory requirement by the start-ups to ensure quality control and monitored disposal of funds.

d) Infrastructure

The Infrastructural landscape for start-ups provided by the state policies is mapped across three sub-themes within 'Infrastructure': Physical, Digital and Sectoral. This classification system helps identify the diverse options available for start-ups with focus on infrastructural development of the start-up ecosystem. Figure A3.10 illustrates the distribution of the sub-themes within the infrastructure category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



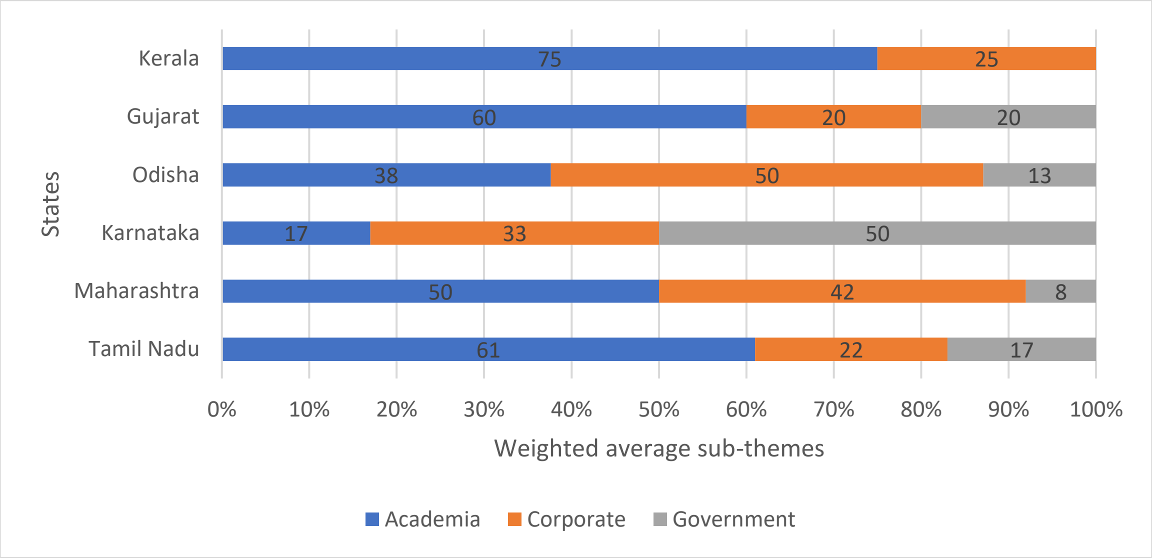
Source: CREST, IITM

Figure A3.10: Distribution of sub-themes within each state's start-up policy for infrastructure using the weighted average method.

Each state's unique approach to supporting start-ups is reflected in their distinct distribution of support for infrastructural support of their start-up ecosystem. From Figure A3.10, Kerala has given majority support for the development of physical infrastructure focusing on building centres that support research and development. Gujarat has supported digital infrastructure with a focus on building a database for start-up registration to encourage paperless disbursement of funds and to monitor the progress of start-ups milestones post funding. Karnataka has prioritized development of centres for targeted sectors such as IT, electronics, AI, Clean Energy etc., with the focus on Sectoral. The difference in approach towards infrastructural development showcases the states focus area for the development of the ecosystem, which can vary based on the overall start-up profiles of each state.

e) Institutional Collaboration

The initiatives taken for institutional collaboration within the start-up polices were categorised in further into 'Academia', 'Corporate', and 'Government'. This helps highlight the distinctive collaborative efforts taken by the state to support the development of the start-ups within the states. Figure A3.11 illustrates the distribution of the sub-themes within the institutional collaboration category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



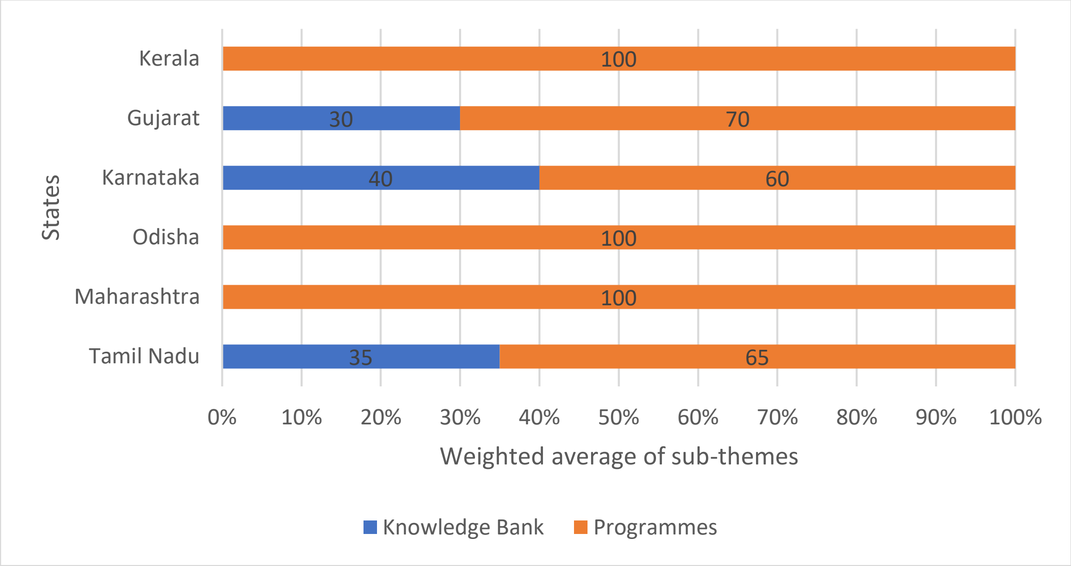
Source: CREST, IITM

Figure A3.11: Distribution of sub-themes within each state's start-up policy for institutional collaboration using the weighted average method.

The distribution of the sub-themes of institutional collaboration helps understand the approach taken by the state polices in order to address collaborative efforts required for start-up development. From Figure A3.11, the efforts of most states, except Karnataka, are divided majorly between Academia and Corporate. Kerala has given more focus on to Academia to promote youth entrepreneurship, while Odisha has focused on Corporate by encouraging transfer of expertise and knowledge between major industry players and start-up. Karnataka has given major focus to Government collaborations unlike the other states which helps connect different departments towards the common goal of start-up ecosystem development.

f) Skill Development and Training

'Knowledge Bank' and 'Programs' are the two sub-themes of skill development and training that help understand the support offered by the state policies towards the development of start-up and entrepreneurial expertise, knowledge transfer and support continued learning. Figure A3.12 illustrates the distribution of the sub-themes within the skill development and training category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



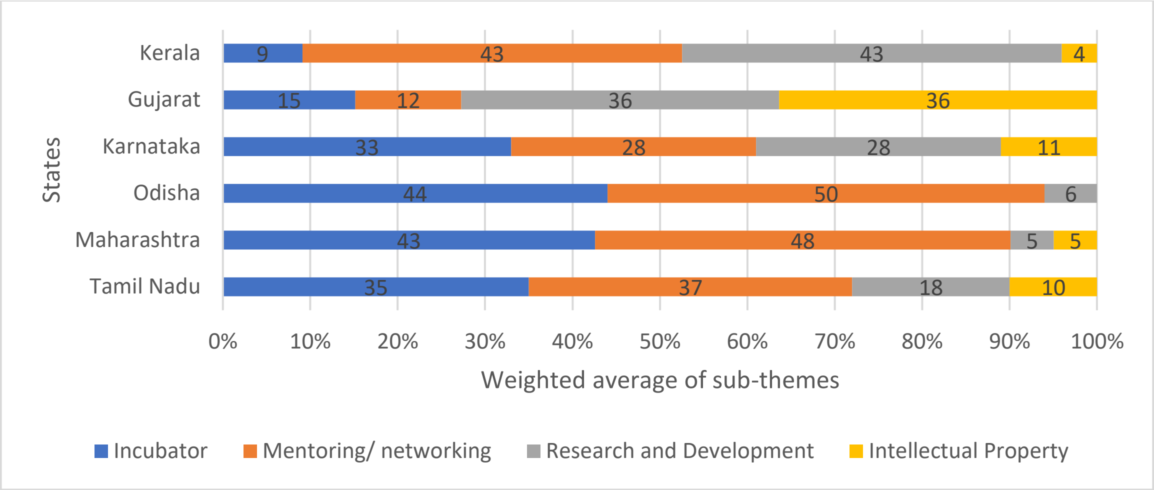
Source: CREST, IITM

Figure A3.12: Distribution of sub-themes within each state's start-up policy for skill development and training using the weighted average method

From Figure A3.12, there are only three states out of the six selected states that have supported the creation of knowledge banks in the state policies. While the focus for the states is more catered towards development of programs, Gujarat, Karnataka, and Tamil Nadu have also given importance to the development of knowledge banks in the states. Knowledge banks help create a pool of knowledge related to the start-up and entrepreneurial journey whether though expert knowledge or shared experiences that are easily accessible for people to utilise. Odisha, Maharashtra, and Kerala have focused on creation of programs that can help bring expertise and knowledge transfer between individuals, while more systematic and limited in number. The distribution within these sub-themes highlights the approach followed by the states to support knowledge transfer amongst the entrepreneurs and experts of the state.

g) Support Systems

The functional systems setup by the states towards the development of a Support System in the start-up ecosystem has been further categorized into four sub-themes: 'Incubator', 'Mentoring & Networking', 'Research & Development', and 'Intellectual Property'. These sub-themes help better understand the overall support offered to start-ups in their journey from idea generation to research with guidance from experienced mentors and incubators. Figure A3.13 illustrates the distribution of the sub-themes within the support system category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



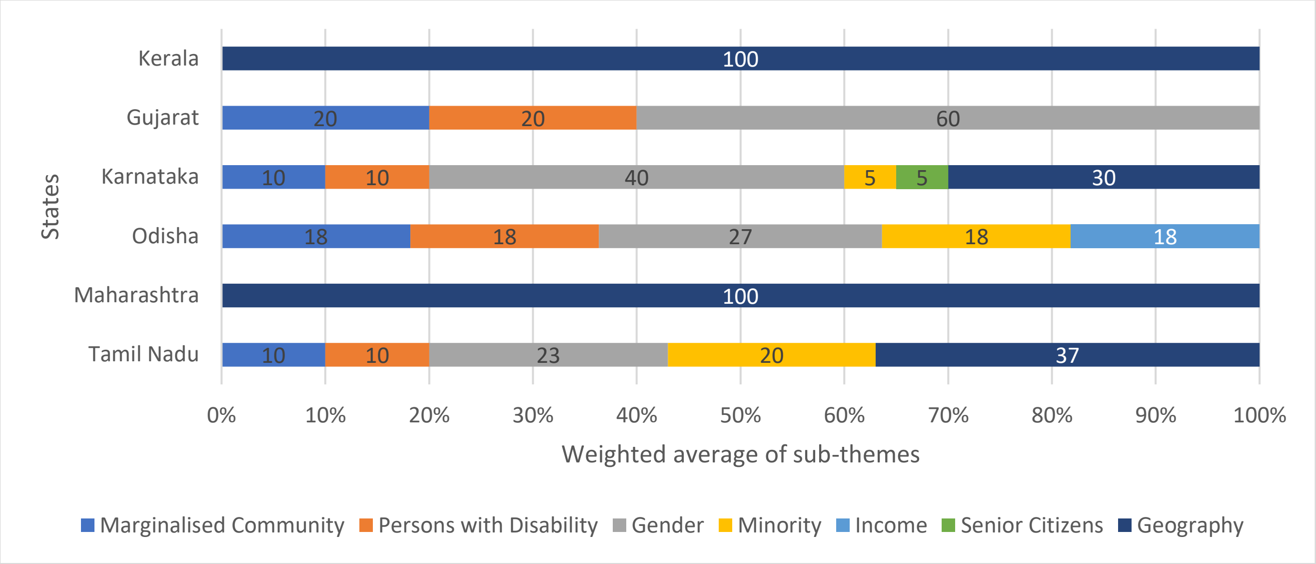
Source: CREST, IITM

Figure A3.13: Distribution of sub-themes within each state's start-up policy for support systems using the weighted average method.

The distributions within this theme reflects the efforts undertaken by each state to develop a system that recognises the needs of its start-up ecosystem and provides them with targeted support. From Figure A3.13, all states apart from Odisha have covered all four sub-themes within this category. Incubator support has been prioritized by Karnataka in its policy by focusing on development of incubation centres across the state and offering start-up get access to resources and working space facilities. Odisha has given focus to providing guidance and expertise to start-up via development of a network between Institutions-Industry-Incubators within Mentoring & Networking to enhance knowledge transfer between them. Gujarat and Kerala have given major focus towards Research & Development that prioritises availability of raw materials and testing areas, and assist in funding development of prototypes. Within Intellectual Property, to legally protect start-up innovation, Gujarat had given major initiatives like funding support for registration of patents, design, and IPR.

h) Provision for Equitable Growth

To study the overall effort of the state policies to include social-economic inclusivity in their start-up policy, the main theme was further categorized into: 'Marginalised Community', 'Persons with Disability', 'Gender', 'Caste', 'Income', 'Senior Citizens', and 'Geography'. Figure A3.14 illustrates the distribution of the sub-themes within the provision for equitable growth category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



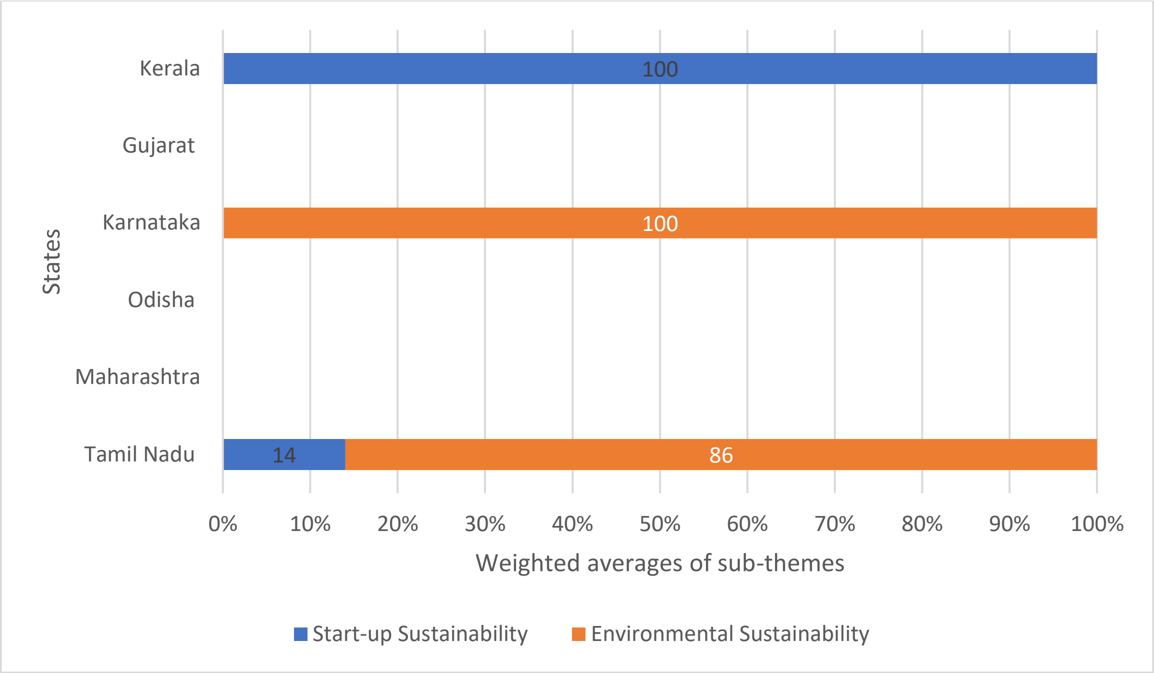
Source: CREST, IITM

Figure A3.14: Distribution of sub-themes within each state's start-up policy for provision for equitable growth using the weighted average method.

The distribution within this category illustrates the support offered by the states towards inclusion of socio-economic benefits in the state polices. From Figure A3.14, Karnataka is the only state that has come close to adding provisions for all of the categories, including being the only state to have specialized support for Senior Citizens. Odisha is following second, also having an advantage over the category of income that has addressed economically backward individuals. Overall, it is interesting to note that the States of Maharashtra and Kerala have only focused on Geography that deals with supporting development that reduces regional disparity. Tamil Nadu has also given most importance to Geography, while Gujarat has focused on Gender-specific initiatives. These varied patterns of support highlight the key areas that the states have focused on in terms of equitable development of start-up communities within the state.

i) Sustainability

The main theme of Sustainability was categorized into two sub themes Environmental Sustainability and Start-up Sustainability. This helps us understand the support offered to promote sustainability within the state policies. Figure A3.15 illustrates the distribution of the sub-themes within the sustainability category, with numbers representing the total number of schemes and initiates calculated using the weighted average method.



Source: CREST, IITM

Figure A3.15: Distribution of sub-themes within each state's start-up policy for sustainability using the weighted average method.

The distribution of the theme of sustainability across the states has brought out clear prioritisation efforts by some states. (Ref Fig. A3.15) It is interesting to note that there are only three out of six total states that have created provisions under this main theme, within which two states have a singular focus in the sub-themes. Karnataka prioritising the provisions and schemes that help in development of start-ups that provide solution for problems related to environmental sustainability such as clean and renewable energy. Kerala, with its provision for accommodating failures within their policy helps build on start-up sustainability that helps increase the longevity of entrepreneurship within the state. Tamil Nadu stands out as the only state to provide provisions for both the sub-themes.

3.3. Cross-policy thematic analysis

Sub theme analysis across polices

a. Access to markets

The heat map in Table A3.1 reveals a comprehensive cross-policy analysis of the sub-themes of access to market across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It helps identify the initiatives followed for creation of a supportive market environment for start-ups by the leading state.

States	Access to market			
	Domestic		International	
	Public Procurement	Market opportunities	Exposure	Export
Kerala	0	17	6	0
Gujarat	27	22	13	0
Karnataka	7	6	13	0
Odisha	7	11	19	0
Maharashtra	20	0	19	0
Tamil Nadu	40	44	31	0

Source: CREST, IITM

Table A3.1: Heat Map - Analysis of sub-themes of access to markets using the weighted average methods

Lack of Export Promoting Policies

From Table A3.1, we note that the selected states for study have not focused on creating export promoting schemes in their start-up policies. It could be due to the challenges faced by start-ups to produce high volume of products for export purposes. Inherently, most start-ups do not have the capacity to fulfil the requirements in terms of high-volume production, and investment requirement to facilitate export.

Domestic

Tamil Nadu is leading in this sub theme with its initiatives that promote public procurement such as Startups 2 Government Procurement via buy-day programmes, Startup to Corporate Procurement. And other sub-schemes under Open Innovation, TANSEED and Smart SHG's, which offer government tenders/bids for public procurement as a means to create demand for products supplied by start-ups. Schemes such as LaunchPad and Marketing Portal, support in increasing market opportunities with provisions to develop marketing skills and offer a platform for start-ups to promote their products.

"*Buy-day programmes will be organised with different government departments and in different districts."* – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

International

Tamil Nadu is also leading in the sub-theme of international with interventions are created for market exposure under schemes such as TANSEED, Native Economic Forums, Beyond TN and Sectoral Forums. They help create opportunities for the growth of start-ups in foreign markets by participation in trade fairs/expos, start-up delegations and establishing connections with foreign opportunities. With international exposure, the start-ups are able to diversify their reach to markets that are not saturated with products similar to theirs which helps them grow connections towards possible diversification of their business models.

"*Every year up to 100 eligible Startups will be supported to participate in National and International Expos and Trade shows. Women-led and Rural/Social Impact Startups will be given special assistance for their participation."* – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

b) Funding and finance

The heat map in Table A3.2 reveals a comprehensive cross-policy analysis of the sub-themes of funding and finance across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It helps identify the approaches followed by the leading state towards development of a funding mechanism that support the growth of start-ups.

States	Funding and Finance			
	Capital Funding	Revenue Funding and Grants	Subsidies and Incentive	Platforms and Networks
Kerala	16	11	11	13
Gujarat	18	26	8	0
Karnataka	33	15	3	20
Odisha	8	26	11	7
Maharashtra	4	11	8	13
Tamil Nadu	20	11	59	47

Source: CREST, IITM

Table A3.2: Heat Map: Analysis of sub-themes of funding and finance using the weighted average methods

Capital Funding

Karnataka has given more importance to providing Capital Funding than other selected states in its policy initiatives. The schemes have been spread across the start-up ecosystem. Such as funds for Incubator support via Support for Technology Business

Incubators (TBI's). Idea2POC Grand-in Aid Scheme as aid for thrust sectors such as deep tech, assistive technology and sustainable development. And, Beyond Bengaluru Cluster Seed Fund which is to support the establishment of start-ups beyond the Bengaluru urban district etc. Karnataka has a scheme that is very unique to its state start-up policy, which is Accelerating Transition to Circular Economy. Within the scheme, they have allocated funds separately for the development of a resource centre, acceleration programs, and funding support for start-ups that are developing on ideas related to Sustainable Development Goals (SGDs).

"*Government will conduct acceleration program with a funding support of INR 40 lakhs/ Cohort annually to support startups working on products/services that align to Sustainable Development Goals (SDGs) including Renewable Energy / Sustainability / Climate Change/ Circular Economy*" – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Revenue Funding and Grants

Odisha has focused on providing grants at different stages of the start-up development under Assistance at the Idea/ Prototyping stage and Assistance once the Idea / Concept gets commercialized, such as a monthly allowance for founders, assistance for marketing and publicity. The grant offered as monthly allowance is made specifically for supporting minorities. It helps empower the communities that may not have the same access to opportunities as others; this level of social inclusion also helps bring in societal development for the economy.

"*Monthly allowance of Rs.20,000 (The monthly allowance shall be Rs.22,000/-, if the startup Founder (s)/Co -Founder (s) are Women or transgender or from Social Categories such as SC/ST/SEBC/PH.*" - Odisha Startup Policy (2016), Micro, Small and Medium Enterprises Department

Gujarat has also focused on revenue funding and grants within its policy in the forms of Sustenance Allowance, Assistance to Enrol and Participate in Acceleration Programs and Skill Development for Start-ups, Mentoring Assistance for Nodal Agencies and Support for Proof of Concept (PoC), Prototype and Innovation at HEI level. These schemes help individuals get access to funds on a small scale for the development of their products and idea. The assistance for development of soft skills also ensures that the start-up founders are given support to prepare for the business requirements beyond that of the creation of the innovative ideas, which helps in improving the growth and development of the start-ups.

"Approved/sanctioned startup shall be provided assistance for skill development trainings specific to soft skills, managerial skills, marketing skills, financing skills for the startup project. Financial assistance up to Rs. 1 lack per approved startup." Gujarat

Industrial Policy - Scheme for Assistance for Start Up and Innovation (2020), Industries and Mining Department

Subsidies and Incentives

Tamil Nadu leads in provision of Subsidies and Incentives, with a focus on mitigating costs and reducing their burden of repayment for start-ups. It has offered targeted subsides such as Annal Ambedhkar Business Champion Scheme as capital subsidy provided for SC/ST Communities, School Innovation Development Program as incentives for innovative projects for school students, New Entrepreneur cum Enterprise Development Scheme (NEEDS) as capital subsidy for first- generation entrepreneurs are some of the many schemes offered by the state to develop the different communities of entrepreneurs.

"*To promote business ventures from founders by SC/ST communities. Under this scheme, 35% capital subsidy and 6% interest subventions are given to the entrepreneurs.*" – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Platforms and Networks

Tamil Nadu is also leading in this sub-theme with schemes like AngelTN, TANFUND, Venture Capital Facilitation, and Conventional Financial Institution are a few of the schemes have been brought forth by the state. The Social Justice Venture Lab distinguishes the state by focusing on entrepreneurs from the Scheduled Caste and Scheduled Tribe communities, by providing support in different forms of mentorship. Their provision for the development of schemes catering towards their minority is evident to provide scope for their development and growth in the start-up economy. Inherently, the state's efforts in diversification of available funding sources help the start-ups gain an opportunity to attract funding from legitimate sources and increase their chances to grow and scale-up.

"*StartupTN will establish the Social Justice venture Lab, a hybrid platform that assists SC/ST founders in validating their solutions right from the early stage, identifying and utilising technology, building a team for scaling, receiving mentorship, and obtaining regulatory support.*" - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

c. Regulatory Reforms

The heat map in Table A3.3 reveals a comprehensive cross-policy analysis of the sub-themes of regulatory reforms across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It helps identify the initiatives offered by the leading states to support start-up with fulfilling regulatory requirements and reduce burden of expenses incurred for quality assurance.

States	Regulatory Reforms		
	Clearance and Approval	Compliance	Governance
Kerala	9	0	9
Gujarat	5	0	46
Karnataka	32	8	11
Odisha	18	17	20
Maharashtra	18	25	4
Tamil Nadu	18	50	11

Source: CREST, IITM

Table A3.3: Heat Map - Analysis of sub-themes of regulatory framework using the weighted average methods

Clearance and Approval

Karnataka, with its lead in the sub-theme, has focused on providing reimbursement as a form of regulatory reform to help start-ups mitigate their costs incurred during the various stages of their start-up lifecycle. Reimbursements for application fee incurred by start-ups registering in regulatory sandboxes and marketing cost for international trade show participation. Also, reimbursement for cost incurred in quality assurance for patents filling cost incurred by start-ups incubated in Government of Karnataka supported incubators. There is also a regional supportive reimbursement for State GST paid by incubators outside Bengaluru Urban District.

"Bengaluru Startups, incubated in GoK supported incubators and CIFs with a maximum annual turnover of INR 1 Crore shall be eligible for 100% reimbursement of annual State GST (SGST), within first three years of being incubated." - Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Compliance

Tamil Nadu has provided start-ups with regulatory bodies that have handholding support to ensure smooth running of legal compliance. It has created a favourable environment for start-ups by reducing the burden to understand lengthy and complex legal compliances. Under compliance the state has brought forward schemes like Financial and Legal Literacy platform, Startup-SME IPO Support, Startup Smartcard, Startup Helpline, Legal Compliance Support, etc. These systems were set in place to assist start-ups with ease of managing their regulatory requirements. This helps start-ups maintain standards based on government requirements and the state can attain quality assurance due to active registration of start-ups in compliance related areas.

"*Startup Helpline: A dedicated Helpline number will be made operational for Start-steps, Startups, Mentors, Investors and any other stakeholders to get their queries clarified."* – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Governance

Gujarat had a prominent lead in Governance with its implementation of a tiered system consisting if State Level Apex Committee (SLAC), Policy Implementation Committee (PIC), Gujarat Knowledge Society (GKS) and Project Management Units (PMS's). These systems help the state decentralise its decision making based on the authority required at each level. Their detailed focus on monitoring and evaluation at various levels of the system ensuring that the provisions established for the start-ups are received by deserving candidates.

"*If the beneficiary is not found unable to deliver the desired outcomes, further release of grant shall be reconsidered."* - Student Start Up and Innovation Policy for the State of Gujarat (SSIP 2.0), Education Department.

d. Infrastructure

The heat map in Table A3.4 reveals a comprehensive cross-policy analysis of the sub-themes of access to market across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It helps identify the efforts undertaken by the leading state towards the development of a robust infrastructural environment for start-ups.

States	Infrastructure		
	Physical	Digital	Sectoral
Kerala	19	4	4
Gujarat	3	12	11
Karnataka	8	15	20
Odisha	14	8	2
Maharashtra	14	4	9
Tamil Nadu	43	58	53

Source: CREST, IITM

Table A3.4: Heat Map - Analysis of sub-themes of infrastructure using the weighted average methods.

From Table A3.4, Tamil Nadu is leading with majority in all sub-themes. With its overall competitive edge in infrastructure, the state has set ground to support any start-ups that require resources to transform their idea into products, regardless of field and sector. A

well-established infrastructure also attracts investments from potential investors outside of the government sources, which leads to it creating an enabling environment for the growth of start-ups.

Physical

Tamil Nadu has developed Physical Infrastructure such as Prototyping Facilities, University Research Parks (URPs), Centre for Innovation, Test Beds and Procurement, Sandbox Incubators. It provides start-ups with access to well-developed facilities that can support in research and development of their innovative ideas. While, also ensuring that start-ups are equipped with the required material to develop those ideas into products. It increases cost-efficiency for early-stage start-ups as they reduce the operational cost incurred in the process of development of their products.

"University Research Parks (URPs): The objective of the URP is to promote industry-academia collaboration, facilitate research and development, commercialization of R&D, entrepreneurship development, catalyze innovation and intellectual property (IP) creation and development of the region into an innovation cluster." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Digital

Tamil Nadu has also created digital infrastructure that helps in development of start-ups in term of gaining access to funds via AngelTN, mentorship via MentorTN, and marketing facilities via LaunchPad and Marketing Portal. It also helps entrepreneurs with skill development via Learning and Development Portal, BrandLabs and Financial and Legal Literacy. These digital platforms are only few out of the many offered by the state and it truly sets them apart from other states.

"*BrandLabs an initiative that enables Startup aspirants to learn about branding from experts and gain valuable insights. This community forum will be enhanced with membership benefits, providing aspiring entrepreneurs with a mentor-linked tutorial on branding strategies, leading to a certification upon completion*." – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Sectoral

In terms of Sectoral, Tamil Nadu has given focus on creations of both physical and digital infrastructure. Physical infrastructure such as Deep-tech Innovation Technology Hub, Prototyping Facilities, University Research Parks, Regional Hub, and Centre for Innovation that support the development of the various sectors across the state. And, Digital infrastructure through Marketing Portal to support sector-based market analytics. The efforts undertaken by the state for sectoral development brings out the potential for growth of various sectors within the state.

"*The Tamil Nadu Technology Hub (iTNT Hub), an initiative by the Government of Tamil Nadu, supports incubation, acceleration, technology commercialisation, and technology development in the deep-tech sector."* – Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

e. Institutional collaboration

The heat map in Table A3.5 reveals a comprehensive cross-policy analysis of the sub-themes of access to market across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It brings out the collaborative efforts taken by leading states across their state policies to develop policies and programs that focus on transfer of knowledge for start-up development.

States	Institutional Collaboration		
	Academia	Corporate	Government
Kerala	9	5	0
Gujarat	26	14	21
Karnataka	6	19	43
Odisha	9	19	7
Maharashtra	18	24	7
Tamil Nadu	32	19	21

Source: CREST, IITM

Table A3.5: Heat Map - Analysis of sub-themes of institutional collaboration using the weighted average methods

Academia

Tamil Nadu is leading in Academia collaborations. It helps bridge the gap between theoretical understanding and practical application of knowledge. Some initiatives such as School Innovation Development Program, Creativity Hubs and Student Innovation Awards that support students develop on innovative ideas and gain supportive grants for prototyping. Learning & Development Portal and NextLeap Initiative that promote learning about entrepreneurship through courses offered by them. Innovation Spirits (Hackathons/Ideathons) that lead events to bring forward best ideas across the state at a competitive level. The focus on development of skills and fostering an environment for entrepreneurship will lead to creation of a talent pool that can utilised for development of innovation in the state.

"*These events will be conducted in HEIs as stand-alone events or in collaboration with corporates, industries, and governmental departments. The collaboration will ensure that the events are well-publicised, and that the best minds from across the State are invited*

to participate." - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Corporate

Maharashtra with its lead in corporate collaboration, has focused on creation of an incubation system at the industry level. This will help in fostering growth of start-ups within the field of expertise of the industry players, while using the agility of start-ups to develop on innovative ideas that can bring in growth for the industry at large. Industry collaboration also helps bring in advice from experts in terms of market validation, refinement of product ideas and help in expansion of ideas for commercialisation.

"*The State will provide support to leading companies and industry associations to establish incubators specializing in their domain*." - Maharashtra State Innovative Startup Policy (2018), Department of Skill Development & Entrepreneurship

Government

Karnataka is leading in government collaboration with many cross department and allied government initiatives mentioned in its start-up policy. Grand Challenged Karnataka (GCK) for funding support of awarding start-up and CSR Investments for projects related to Sustainability Development Goals (SDGs). Idea2POC Grand-In-Aid Scheme that provided mentoring and incubation support at government supported incubation centre, while Facilitate Investor Connect to get start-ups connected with government departments for funding. These multi-department support offered by the state helps start-up gain access to markets that are allied to their field of products and gain access to markets that can help in diversification of their start-up.

"*Grand Challenges Karnataka (GCK) – Innovative solutions for societal impact: Each year 3 challenges will be announced in collaboration and funding support of different Government Departments/Corporates. The winners will be awarded an initial grant of INR 10 Lakhs to test and demonstrate the solution and a follow-on funding of INR 50 Lakhs for deployment of solution."* – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

f. Skill development and training

The heat map in Table A3.6 reveals a comprehensive cross-policy analysis of the sub-themes of access to market across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It brings out the leading state's efforts in creations on policies within the start-up ecosystem that promote skill development for entrepreneurs.

States	Skill Development and Training	
	Knowledge Bank	Programmes
Kerala	0	15
Gujarat	27	17
Karnataka	18	7
Odisha	0	17
Maharashtra	0	17
Tamil Nadu	55	27

Source: CREST, IITM

Table A3.6: Heat Map - Analysis of sub-themes of skill development and training using the weighted average methods

Knowledge Banks

Tamil Nadu is leading in Knowledge Bank, with initiatives such as Learning and Development Portal, Startup Playbook –Master Class, Financial and Legal Literacy, and BrandLabs. They cover different topics that would be required for entrepreneurs to start and grow their innovative ideas. Tamil Nadu, with its efforts in creation of knowledge banks also helps it reach a larger crowd of the community that may be interested to know about entrepreneurship and start-ups.

"A Learning and Development Portal comprising many self-learning video courses covering real time scenarios of a Startup journey will be developed. This portal will also showcase the success and failure stories of Startups as case studies." - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Programmes

Tamil Nadu is also leading in this sub-theme. While knowledge banks are accessible for a larger audience of people, programmes would be available for the few that participate in the events. School Innovation Development Program and Certified Internship programme are initiatives by the state to bring students in an environment of learning through first-hand experiences and expert knowledge. These kinds of programmes help encourage students to facilitate their growth in fields on innovation and the start-up ecosystem, by providing them with clear insight as to how the start-ups work and the benefits of development of their ideas into reality.

"Certified Internship Programme,' which will be designed to provide students from Higher Education Institutions (HEIs) in Tamil Nadu with an opportunity to gain exposure to the

Startup and Innovation culture." - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Scaleup Support Programme is catered more for start-ups that are looking to get guidance from experts to ensure that they do not falter at a critical stage of their growth. Food Business Operator (FBO) Business Model Innovation Accelerator program is a program that focuses on the adoption of new technologies and encourages innovation in the sector. These are more focused towards development of a specific set of start-ups in the state. The programs at large provide a platform for individuals and start-ups to grow their skill set and gain expertise in their field of knowledge, it would lead to them making more educated decisions in their journey to grow and scale up their start-ups.

"StartupTN will launch a specialised mentorship programme led by experienced founders who have successfully scaled their own companies. The programme will provide guidance and support to ensure that Startups in Tamil Nadu do not falter at this critical stage of growth." - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

g. Support systems

The heat map in Table A3.7 reveals a comprehensive cross-policy analysis of the sub-themes of access to market across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It highlights the leading state's efforts in bringing forward a collaborative support system that bridges the gaps of knowledge and expertise for start-ups.

States	Support Systems			
	Incubator	Mentoring/ networking	Research and Development	Intellectual Property
Kerala	4	16	24	4
Gujarat	9	6	29	52
Karnataka	11	8	12	9
Odisha	13	13	2	0
Maharashtra	17	16	2	4
Tamil Nadu	45	40	29	30

Source: CREST, IITM

Table A3.7: Heat Map - Analysis of sub-themes of support systems using the weighted average methods

Incubator

Tamil Nadu with its lead in Incubator, has also focused on creating an incubator system that can provide support for start-ups in Tier II and Tier III cities with Sandbox Incubators. Scaleup Incubators brings incubation personnel under one roof to encourage and support creation of capacity building plans for start-ups. Overall, an incubator system helps increase the development of the start-up ecosystem positively as all members of the system are exposed to each other and create a synergy of knowledge and information between them.

"More than 30% of the Tier II and III Cities still lack a formal structure for the Incubation Centre. To address this gap, Institutional Startup Circles (ISCs) as mentioned in the para 7.2.3 of this Policy will be established every year. " - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Mentoring/ Networking

This sub-theme is led by Tamil Nadu, with its various initiatives created to support start-ups by providing them with mentoring support by experts. Some of the platforms created by the state include Startup Playbook – Master class and Legal Compliance Support via MentorTN. They have targeted mentoring support within other initiatives such as Scaleup Support Programme, Cross Border Acceleration programs, Native Economic Form, Smart SHG's etc. The state also stands out in its mentoring and networking support offered to targeted beneficiaries such as the SC/ST community via Social Justice Venture Lab, and Trans People-led and Differently Abled-Led Startups for minority community.

"*MentorTN is a portal that brings together Startups and experienced professionals in diverse sectors who are willing to share their experiences."* - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

Research and Development

In terms of Research and Development, the States of Tamil Nadu, Kerala and Gujarat have provided similar number of interventions within their policy to support this sub-theme. The support in this sub-theme leads to an increase in research and innovation within the states.

Kerala has initiatives such as Fab Kerala Network, Open Innovation Platforms, Technology Commercialisation Centre, DIY Bio Lab, Mini Fab Labs etc., under Kerala Start-up Mission (KSUM) which are directed towards providing support for research and development and various levels of the society from academics to industry.

"Th*e Kerala Fablabs has a vibrant ecosystem for creating a maker culture among the young techno entrepreneurs, who want to develop their innovative technology idea into a product prototypes with fine design functionalities."* – Kerala Technology Startup Policy

(Included as Sub Point 7 in Kerala State IT Policy) (2017), Department of Information Technology

Gujarat has provided support for in forms of Funding Cost of Raw Materials and supporting Testing and Trials of products. They have promoted innovation by developing Tinkering Labs for product development at the educational level. They have also offered assistance for students that require support to register their Intellectual Property (IP).

"Utilization of fund allocated to develop pre-incubation facilities and assist students in IP filing, developing PoCs, prototypes and other innovation related activities."- Student Start Up and Innovation Policy for the State of Gujarat (SSIP 2.0), Education Department.

h. Provision for equitable growth

The heat map in Table A3.8 reveals a comprehensive cross-policy analysis of the sub-themes of access to market across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It brings out the efforts undertaken by the leading states to include socio-economically inclusive policies, which help ensure that the benefits of economic development are fairly distributed across all of society.

States	Provision for equitable growth						
	Marginalised Community	Persons with Disability	Gender	Minority	Income	Senior Citizens	Geography
Kerala	0	0	0	0	0	0	9
Gujarat	13	13	14	0	0	0	0
Karnataka	25	25	38	11	0	100	27
Odisha	25	25	14	22	100	0	0
Maharashtra	0	0	0	0	0	0	14
Tamil Nadu	38	38	33	67	0	0	50

Source: CREST, IITM

Table A3.8: Heat Map - Analysis of sub-themes of provision for equitable growth using the weighted average methods

Marginalised Community / Persons with Disability

Tamil Nadu is leading this in sub-theme, with their targeted scheme Trans People-Led and Differently Abled-Led Startups that provides mentoring, incubation and acceleration support for start-ups. The scheme covers support in forms of funding through TANSEED program, and offers Capital Subsidy.

“Startups promoted by trans people and the differently abled which have failed to raise funds from mainstream sources will be identified and 10 such Startups will be given a grant-in-aid of INR 5 lakh in addition to giving them special attention in TANSEED program.” - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises.

Gender

Karnataka is leading in this category with support for women-led start-ups by providing support under Women Entrepreneurship scheme in the policy. The scheme covers seed funding, venture capital funds, and direct loans in terms of funding opportunities. It also supports incubation support and programs that focus on acceleration and capacity development.

“Reservation of 20% seats at Government supported incubators for women startups." – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Tamil Nadu is close second in this category, with various schemes offered in support of the development of women-led start-ups. Under Co-Creation Fund and TANSEED, funding opportunities are available for women-led start-ups. Accelerator Program for acceleration support, and BeyondTN for support in participation in international expos. Women Scaleup Centres and Smart SHG’S offer guidance and mentorship in addition to financial support.

“The aim is to inculcate the entrepreneurial culture among women SHGs. The Smart SHGs will act as spokes that get procurement orders from the Startups, which are the hubs.” - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises.

Minority

With a lead in this sub-theme with a clear majority, Tamil Nadu has set an advantageous environment for equitable growth in this category. There are several targeted schemes offered for the SC/ST community, such as SC/ST Startup Promotion to encourage and promote social inclusion and TN SC/ST Startup Fund. Annal Ambedkar Business Champions Scheme that provides support in the forms on capital subsidy, mentoring and specialised training. And, lastly the Social Justice Venture Lab that helps in validation at the early stage also provides mentorship, and regulatory support.

“To encourage and promote social inclusion, the State Government has been a pioneer in reaching out to entrepreneurs from the Scheduled Caste and Scheduled Tribe Communities (SC/ST) which are under-represented in the Startup ecosystem.” - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises.

Income

Odisha is the only state that has provisions for the Income sub-theme. It deals with providing support to entrepreneurs who under the socially and economically backward

class (SEBC) category. The state has provided support in forms of a Monthly Allowance during idea/prototype stage of start-up and as Marketing Assistance one the idea/concept gets commercialised.

"*Product development and Marketing/Publicity assistance up to a maximum of Rs.15 lakh (The amount shall be Rs.16 lakhs, if the startup Founder (s)/Co - Founder (s) is Woman or transgender or from Social Categories such as SC/ST/SEBC/PH*" - Odisha Startup Policy (2016), Micro, Small and Medium Enterprises Department.

Senior Citizens

Karnataka is the sole state that has made provisions for Senior Citizens in its policy. With the inclusion of Senior Citizens, it addresses the need for innovative technology that can support in easing the burdens of their everyday. Centre of Excellence for Assistive Technology offers funding support for development of innovative ideas.

"The State Government will facilitate setting up a Centre of Excellence for Assistive Technology (AT) with a grant/funding support of INR 15 Crore to develop innovative products and solutions for Differently abled community and senior citizens, in collaboration with Department of Empowerment of Differently Abled and Senior Citizens, academia, and industry partners" - Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Geography

Tamil Nadu, with a majority in Geography, has provided support in its policy for reducing regional disparity by development of rural areas at par with urban areas. The state has also focused on development of Tier II and Tier III cities. There are funding opportunities under Co-Creation Funds, BeyondTN and TANSEED. Incubation support with Corporate Incubators and Sandbox Incubators. Support for skill development through FPO Business Model Innovation Accelerator Programs for farmers for capacity building. The effort of the state to build Regional Hubs stands out, against other policies as it brings out location specific benefits for the start-up communities.

"*StartupTN established the Regional Hubs in Madurai, Erode and Tirunelveli. These hubs hosted student programmes, pitch events, hackathons and other flagship programmes of StartupTN at the regional level."* - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises.

i. Sustainability

The heat map in Table A3.9 reveals a comprehensive cross-policy analysis of the sub-themes of access to market across states. Calculated using the weighted average method, the numbers enable column-wise comparison. It highlights the initiatives undertaken by the states to include sustainability within its scope of start-up polices.

States	Sustainability	
	Start-up sustainability	Environmental sustainability
Kerala	80	0
Gujarat	0	0
Karnataka	0	60
Odisha	0	0
Maharashtra	0	0
Tamil Nadu	20	40

Source: CREST, IITM

Table A3.9 Heat Map - Analysis of sub-themes of sustainability using the weighted average methods

In this study we looked at two segments of sustainability. Environmental Sustainability, to understand the provisions of the state's policies to bring forth development of start-ups that focus on creating products and services that encourage environmental sustainability. Start-up Sustainability brings out the states provisions to help prevent failure of existing start-ups in terms of giving access to funding, mentoring and revival support at a failing stage.

Environment Sustainability

Karnataka has provided support for creation of start-ups that develop on environment sustainability in forms of funding opportunity such as Idea2PoC, and Accelerating Transition to Circular Economy which also has development of acceleration program for start-ups to accelerate their growth and dedicated resource centres. They have also created an Acceleration Network that helps in providing policy interventions beyond funding such as mentoring and networking opportunities, this helps the start-ups gain expert advice and peer support in the domain of environmental sustainability.

"*This network will assist the startups in their growth journey after the seed funding program by providing strategic support, funding, mentorship, and networking opportunities. Thrust will be given to startups working in areas related to Sustainable Development Goals (SDGs) including Circular Economy, Renewable Energy / Sustainability / Climate Change*" – Karnataka Start-up Policy (2022), Department of Electronics, IT, BT and S&T

Start-up Sustainability

Kerala is the only state from our selected-states that focuses on Accommodating Failures in its policy. It provides the start-ups with a way to exit the start-up ecosystem with dignity if the start-ups fail to gain or retain momentum. They recognise that there are no failed entrepreneurs but only a learning experience that is equally important. Winding up Facilitation looks at the providing guidance and support to start-ups that may require assistance in closing down the enterprise and Distress Funds looks at opportunity for start-ups to write off/ or reimburse their debts.

"If the startup had a compelling reason to borrow and attempt the idea and it is seen that they had genuinely attempted it then the government shall write off/ reimburse debts of such startups through a fund created under Distressed Startups Fund." – Kerala Technology Startup Policy (Included as Sub Point 7 in Kerala State IT Policy) (2017), Department of Information Technology

Dual Support

Tamil Nadu is the only state that has made provisions for both these sub-themes. With its efforts to prevent failure of start-ups via scheme like Revival Support. For environmental sustainability, it has provided provisions such as Accelerator Program, Test Beds & Procurement Desks for Green Tech, Capital Subsidy for plant and machinery promoting cleaner and environment friendly technologies and Climate Action-focused funds for start-ups.

" *The Government of Tamil Nadu will provide support to startups that have viable products or services but are on the verge of closure for reasons like uncertainty in the next round of funding or inability to meet capital requirements, rising inflation & interest rates and any other logical reasons.*" - Tamil Nadu Innovation and Startup Policy (2023), Department of Micro, Small and Medium Enterprises

START-UP ECOSYSTEM IN TN: OPPORTUNITIES AND CHALLENGES

Tamil Nadu targets a $1 trillion economy by 2030, with StartupTN driving innovation in IT, healthcare, and manufacturing. Chennai leads as a start-up hub, while Tier-II cities like Coimbatore and Madurai emerge with sector-specific potential. Despite strong talent and infrastructure, challenges persist in funding access, scheme awareness, market access, and regulatory compliance. To become a global start-up hub with inclusive growth, policymakers must address these gaps, streamline processes, and leverage the state's existing strengths in equity and infrastructure development.

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